We show you how to punch up a Brummbär's camo p.14

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FineScale Modeler (ISSN 0277-979X, USPS No. 679-590) is published monthly (except for June & August) by Kalmbach Publishing Co., 21027 Crossroads Circle, P.O. Box 1612, Waukesha, WI 53187.
Periodicals Postage is paid at Waukesha, WI and additional offices. Postmaster: Send address changes to FineScale Modeler, P.O. Box 62320, Tampa, FL 33662-2320. Canada Post Publication Mail Agreement #40010760.

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By Mark Savage

Finding peace of mind in plastic

Time in the *FSM* workshop is precious. This editing gig seems to suck up a lot of what would be valuable model-building time.

But this year we decided to push ourselves (and you) to build more by starting an online modeling challenge. The goal? To complete a model in a month.

We each picked something we had been wanting to build. Although, let's be honest, Aaron gets to build more than the rest of us here each year!

Not surprisingly, I chose an IndyCar, a Revell kit of Scott Pruett's Pioneer-sponsored Reynard-Toyota racer from 1999.

It has been a blast to get back to creating something (other than a magazine). I especially enjoy the painting and find that my hands are still pretty steady.

Building takes your mind off politics, crummy weather, crazy co-workers ...

It's the eyes, as we've discussed here before, that are more of a challenge these days. I'm lucky in that the 1/24 scale racer build isn't hampered by too many ultra-small parts.

The good news is that we all learn a little something each time we build (mine is patience), and we refine our skills, too.

I had one of the folks here poke his head in the workshop the other day to ask if I was aggravated yet. Happily, I could say no, and oddly, for me anyway, I've found that building and painting are calming. Building takes your mind off of politics, crummy weather, crazy co-workers, and the morning commute.

And that, my friends, is worth all the iPads, iPods, and iPhones in the world. Finding a creative outlet that also gives your mind time to unwind is vital to good mental health.

So when I finish (only about halfway there), I'll not only have another racecar to display in my already crowded office, I'll have a certain peace of mind.

That's a rare commodity in our overbusy world. So, as one of our area's NFL football heroes famously said, R-E-L-A-X. I bet he was thinking of modeling at the time.

editor@finescale.com

Off the sprue: What's your favorite sport to play?

Editor
Mark Savage
msavage@Kalmbach.com

I used to be pretty proficient at tennis and softball, but an aching back and old-guy legs aren't helping me much there. I'm a Hoosier, though, and still enjoy shooting baskets. I'm pretty deadly from the foul line!

Senior Editor
Aaron Skinner
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Ten-pin bowling and snooker — games where you play half of the time and spend the other half socializing with a drink in your hand.

Associate Editor
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When I could run I was pretty fair at baseball: spray hitter, good glove. Actually, I can still run. It's just for too long in the same place.

Assistant Editor
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Considering I once ran the wrong way in a game of baseball, I'll stick to Taekwondo. My specialty is the jump front kick.

Editorial Associate
Monica Freitag
mfreitag@FineScale.com

Is fishing a sport? I enjoy it, especially early in the season toward the end of May. The water is cool, but not cold, so the fish are biting, but the bugs are not! Even on the ice in midwinter is OK, although I prefer fishing in the warm sunshine.

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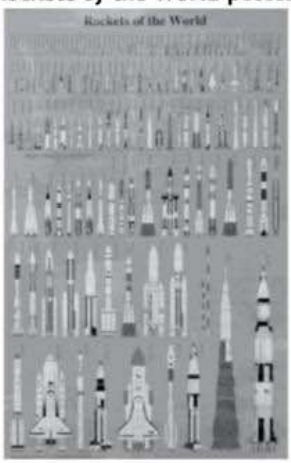

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Editorial phone (262) 796-8776; advertising (888) 558-1544; customer service & sales (800) 533-6644; outside the U.S. and Canada (813) 910-3616.

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The importance of a strong foundation

There's something to be said for doing a good, if just basic, job on models.

Proper seam-filling, straight and level construction, clean masking, painting, and finishing appropriate to scale, and prototype accuracy should be the goals in any modeling project.

Many of the more "advanced" and "artistic" techniques are used to mask unlearned basics and distract the eye.

I'm not opposed to the techniques, I just think that the basics should be minded first and foremost. I believe the end result will be far more attractive to the viewer and satisfying to the builder.

– Peter Espada
Camp Hill, Pa.

We've come a long way

I read your Tamiya F-14A review (January 2017) and realized just how spoiled we have become.

Back in the day when Tamiya came out with its first 1/32 scale F-14, the reviewer raved over the fact that Tamiya had inscribed panel lines on most of it, but not the whole jet! In his words, this would have cost a king's ransom to do. I have this unopened kit sitting on a shelf at home.

Nowadays, it is not acceptable if even a few panels are missing.

Back then, this was considered the standard manufacturers should try to equal.

As a side note: My wife did not let me forget the amount of money I paid for that original F-14 for a very long time.

– Bill Simpson
Tampa, Fla.

Long live originality!

I was impressed by Karl Logan's article in the February issue. My blood pressure has risen to the point that I must comment on the tremendous piece.

My grandfather was an engineer for the Missouri-Kansas-Texas (MKT) Railroad years ago and was also a genius model railroader who let me work with him when I was little.

His railroad was composed of MKT yards throughout the line he worked on. One day, I noticed a particular scene had 10 grain silos, and I commented that in reality there were only eight in the area.

His response was, "This railroad is yours and mine. We can do and make anything we want." I fell in love with modeling at that moment.

I commend you for making the point that if every project was for accuracy, and not for originality, the hobby would quickly become boring.

Let's not let that happen!

– Tim Murphy
Richardson, Texas

A photo is the greatest reference

I'm recently retired, which indicates I've been modeling for a quite a few decades. I've won many IPMS awards over the years, using older techniques that, while effective, have been virtually replaced with the newer techniques I've read about.

One piece of advice I have to modelers is to always try and get photos of the actual aircraft so you can use them as a reference when weathering.

True, sometimes this leads to a build that does not garner any awards at contests because the judges may claim they have

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Free desktop wallpaper
Download a computer background of Kitty Hawk's two 1/48 scale Banshees built by Andy Keyes for Workbench Reviews and featured on p. 56 in this issue.

MMSI Show Gallery
Didn't make it to the 2016 MMSI show in Chicago? Go online to see dozens of the best models there. And turn to p. 46 to see even more figures.

See the complete diorama
On p. 42, learn how to construct shattered stained glass for a cathedral-turned-rubble. Author Marc Grand later added an M4A3 tank to his diorama. See photos online.

Did you know there are more than 1,500 free Workbench Reviews at FineScale.com?
See all of them by clicking "Product Info" located in the top black bar on the home page. From there you can scroll through years of reviews of the most popular kits.

And if you're a subscriber, you also can view in-depth current reviews of the newest models available. Reviews are updated monthly.

Go check it out!

What does *your* space look like?

Two beats one

In the February issue you invited readers to send photos of their workshops. I am lucky enough to have two modeling spaces in my home.

The first room (above) is large and shared by me and my wife, who is a stamp and card maker.

The second space is an enclosed patio. In a moment of forethought (doesn't happen much), I had a bathroom fan put in the wall. I use the fan to vent the fumes from my spray booth.

– George Blair
San Antonio, Texas

There's always room

I live in a two-bedroom apartment in Boston and, in contrast to other generous workspaces I have seen, my "space" is limited to what you see (above).

The two carts make it manageable, as tools and supplies are in the slide-out drawers. They are semi-custom-made by Elfa Systems, a closet systems vendor.

Spray-painting is done in my second bathroom within a makeshift spray booth.

Where there's a will, there's a way.

– Ware Cady
Charlestown, Mass.

Clean … for now

I saw your request in the February issue about sending photos of our workshops.

Because I had just spent about five hours cleaning mine up, I thought I would send a picture (above).

I guarantee it won't look this good a week from now!

I usually model cars, but since reading your magazine I've gotten the itch to try some military models.

You might be able to make out the M41 Walker tank that I just started.

– Lee Burrows
Evansdale, Iowa

never seen a model plane with that style of weathering, but at least you'll know it to be accurate.

– Carl Jarosz
Columbus, Ind.

All levels of weathering work

Karl Logan's weathering philosophy got me thinking …

The only time I obsess about weathering accuracy is when I am building one of the Air Force aircraft I worked on during the Vietnam War, because I know what it actually looked like.

Those planes, although 5 to 30 years old, were pretty consistently well maintained with frequent trips to the wash rack and repaintings. There were rarely panels mismatched by fresh paint, not much grunge, and mostly subtle chipping and paint wear.

What you mostly had was general paint fade and fluid leak smears on the underside (especially on B-52s). Most of the dirt and chipping was not that visible at scale.

World War II planes are actually even cleaner looking; since they had such short service lives, most of them looked pretty new. In contrast, the few that were in service for a couple of years would have been pretty sad because there wasn't as much time or resources to pamper them.

The same likely applied to armor. So, really, you can get away with weathering as subtly or as intensely as you like.

No matter how lightly or heavily you lay it on, there was probably a real machine that looked just like that. So have at it!

– Mario Liegghio
Manhattan Beach, Calif.

Go easy on the unrealistic weathering

In response to Karl Logan's article on accuracy vs. artistry:

I'm a retired U.S. Air Force weapons troop (aircraft armament system craftsmen) who entered service in 1982 and spent 20 years working fighters.

There are two sides of reality when it comes to all of the different weathering techniques. There's a difference between peacetime care and combat maintenance of aircraft. The weathering is also dependent upon the unit.

At Osan Air Base in South Korea, my first assignment, we met USAF standards of corrosion prevention (wash rack) maintenance.

While at my second assignment at Shaw Air Force Base in South Carolina, we were meticulous with aircraft appearance. We practiced enhanced corrosion control, or as we put it, "spray and wipe." The landing gear wells were kept spotless; no excess grease was permitted. The tires were treated with Armor All. When we finished a job, we cleaned the area around it. We even cleaned the insides of inspection panels.

When I was overseas, the standards of appearance were not as strict. Before Desert Storm, at Holloman Air Force Base in Texas (where I was introduced to simple gray or light and dark ghost gray), we kept jets just as clean as at Shaw. If we couldn't get the grime off we simply painted it with spray cans. Because of this, I think a small amount of shading is OK.

After Desert Storm and personnel reductions, we didn't have the same manning levels. The necessity of simple gray and a lot of "spray and wiping" diminished.

From that point on, A-10 jets at Davis-Monthan in Arizona were permanently

stained with gun gas residue.

So when considering how much weathering to apply to a model, my outlook is a compromise between the two sides described by Karl. Panels that need to be open and closed on each launch would get the most dirt. Jets with an onboard boarding ladder (such as an F-15) would get black stains from boots rubbing to find the kick panels. A boarding ladder on an F-16 will get black rub marks where the ladder came in contact with the jet.

The biggest problem of reality vs. artistic comes with weapons configuration. Just because a jet can carry something doesn't mean it would fly a mission with all of the "junk in the trunk."

– Scott Podeyn
Albuquerque, N.M.

Ed.: What are your *thoughts on weathering? E-mail us at Editor@FineScale.com and let us know your philosophy.*

Ed.: The price of Meng's Hummer H1 was accidentally left out of the review in the March issue. The kit is $96.99.

Newsletter's new product videos are exciting

Your newsletter sent in early January caught my attention because of the kits featured on the New Product Rundown. Bravo!

The video with Aaron and Elizabeth reviewing a group of diverse new kits was effective, informative, and entertaining.

I'll tune in for the next exciting episode!

- Fred Glock
Richfield, Ohio

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NEW PRODUCTS

Compiled by Monica Freitag & Aaron Skinner

Spotlight

All-new Typhoon blows into workshops

The Eurofighter Typhoon has been a popular modeling subject with the first kits hitting shelves in the late 1980s before its first flight.

Revell Germany's new Typhoon (No. 03952) is actually its third tooling of the Eurofighter in 1/72 scale and it combines modern molding with simplifed construction.

Fine recessed panel lines, vents, and hatches mark the major parts.

Raised switches and controls decorate the cockpit side consoles and the clear instrument panel. Decals provide details and dials.

Structural components in the wheel wells and landing gear will pop under washes. The exhausts extend to the rear fans and the intake, although not full length, are adequate for the scale. Optional exhaust nozzles are provided. Underwing stores include fuel tanks and four missile types.

Decals give markings for a single German Typhoon in bright commemorative markings.

Revell Germany's Typhoon costs $17.95.

AIRCRAFT KITS

1/32 SCALE

Reggiane Re.2000 Falco from Silver Wings, No. 32-019. Resin. Contact your local dealer for price information.

1/48 SCALE

Nakajima Hayate "Frank" and Kurogane scenery set from Tamiya, No. 61116, $52.

Mitsubishi A5M2b "Claude" from Wingsy Models, No. D5-01, $79.98. Look for a review in an upcoming issue of *FSM*.

Sukhoi Su-27 Flanker B from HobbyBoss, No. 81711, $65.99. Look for a review in an upcoming issue of *FSM*.

H-21C Shawnee "Flyng Banana" from Italeri, No. 2733, $47.99. Look for a review in an upcoming issue of *FSM*.

Bell X-1 Mach Buster from Eduard, No. 8079, $39.95.

Kawasaki Ki-61-Id Hien "Tony" from Tamiya, No. 61115, $52.

1/72 SCALE

Spitfire Mk.IX from Eduard, No. 70122, $24.95. ProfiPack.

Spitfire Mk.XVI Dual Combo Limited Edition from Eduard, No. 2117, $44.95.

Welcome new manufacturers:

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Wingsy Models: www.wingsy.com
Silver Wings: www.silverwings.pl
Chooch Enterprises: www.choochenterprises.com

1/144 SCALE

Bristol Freighter Mk.31 from OzMods Scale Models, No. 14418, $38. Contains clear parts and decals. Look for a review in an upcoming issue of *FSM*.

TBF Avenger, from Minicraft Models, No. 14731, $11.99.

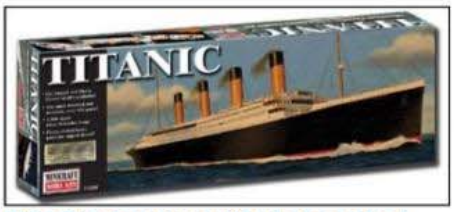
ARMOR KITS

1/48 SCALE

Elefant German heavy tank destroyer from Tamiya, No. 32589, $36.

SHIP KITS

1/350 SCALE



RMS *Titanic* deluxe with photo-etched parts from MiniCraft Models, No. 11320, $99.99.

1/700 SCALE

USS *Lexington* (CV-2) U.S. Navy aircraft carrier from Meng Model, No. PS-002, $62.99. Look for a review in an upcoming issue of *FSM*.

SPACECRAFT

1/48 SCALE

Haunebu II German flying saucer from Squadron, No. SQ-0001, $79.99. Look for a review in an upcoming issue of *FSM*.

AIRCRAFT DECALS

1/48 SCALE

USAF F-106A Delta Dart from Caracal Models, No. CD48112, $13.99. Four USAF marking options for Trumpeter.

Air National Guard P-51D from Caracal Models, No. CD48113, $11.99. Part 2: Wyoming, Tennessee & Pennsylvania ANG. Three postwar marking options designed for Tamiya kit.

DHC-2 Beaver from Caracal Models, No. CD48107, $13.99. Six marking options designed for HobbyCraft.

AV-8B+ Part 1 from Caracal Models, No. CD48115, $13.99. Five marking options for US Marine Corps Harriers for Hasegawa.

U-2 from Caracal Models, No. CD48118, $14.99. Ten marking options for Early U-2 Spyplanes for Hawk/Testors.

Bf 109G-6 Balkendreuze from Eduard, No. D48027, $12.95.

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A-1E Skyraider from Caracal Models, No. CD72053, $13.99. Seven marking options for Monogram.

B-1B Lancer from Caracal Models, No. CD72056, $14.99. Seven marking options for USAF B-1B Lancer long-range bombers for Monogram.

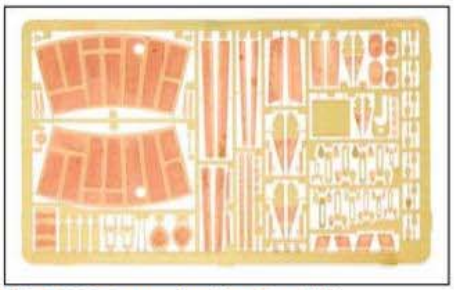
Whitley Mk.VII mask from Eduard, No. CX468, $12.95.

Mosquito airframe stencils expanded from BarracudaCast, No. BC72165, $5.95. Available in 1/24 BC24167, 1/48 BC48166.

Mosquito airframe stencils expanded from BarracudaCast, No. BC72165, $5.95.

AIRCRAFT DETAILS

1/32 SCALE



Me 262B-1 exterior (for Revell) from Eduard, No. 32395, $19.95.

Spotlight

Trouble with the curve? There's a tape for that

Masking straight lines is easy: Lay a strip of tape along the line and paint away. Curves present a challenge because even the paper used for most tapes can't bend enough to make smooth curves without bunching and letting paint bleed.

Tamiya comes to the rescue with a thin, white plastic tape; it's similar to electrical tape, but cut into several widths — 2mm (No. 87177), 3mm (87178), 5mm (87179), and 12mm (87184).

I played around with it to mask a 1/48 scale plane and a 1/8 scale figure. In the past, I would have cut the necessary curves from Tamiya paper tape. Instead, I carefully laid the tape around the curves. The stretchy material was easy to apply, stuck well, and scissors or a sharp hobby knife cut it easily.

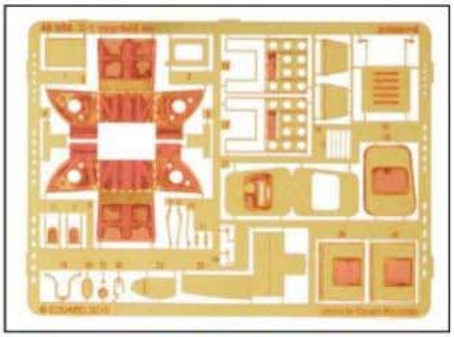
Best of all, it formed a tight seal against errant paint and it pulled off without damaging the underlying paint or leaving residue.

A roll of the 12mm tape costs $11.50, the rest are $6.50 each.

Me 262B-1 interior (for Revell) from Eduard, No. 32893, $29.95.

Me 262B-1 seatbelts Steel (for Revell) from Eduard, No. 32894, $12.95.

1/48 SCALE



Bell X-1 upgrade set (for Eduard) from Eduard, No. 48908, $19.95.

Seatbelts IJAAF WWII Steel from Eduard, No. 49109, $19.95.

Seatbelts France WWI Steel from Eduard, No. 49108, $19.95.

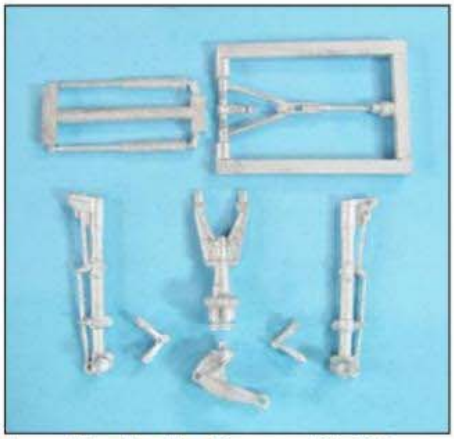
Bf 109F propeller Late for Eduard from Eduard, No. 648 288, $9.95. Brassin Line.

F-14A wheels late (for Tamiya) from Eduard, No. 648 290, $7.95. Brassin Line.

Curtiss P-40B landing gear (for Airfix) from Scale Aircraft Conversions, No. 48320, $13.95.

AH-64D Apache landing gear (for Hasegawa) from Scale Aircraft Conversions, No. 48321, $17.95.

F-4 Phantom landing gear (for Zoukei-Mura) from Scale Aircraft Conversions, No. 48322, $16.95.



Super Etendard landing gear (for Kitty Hawk) from Scale Aircraft Conversions, No. 48323, $16.95.

1/72 SCALE

BAC Lightning F.2A/F.6 cockpit set from BarracudaCast, No. BR72212, $12.50.

Spitfire Mk.IX engine (for Eduard) from Eduard, No. 672126, $29.95. Brassin Line.

H.S. Redtop air-to-air missiles from BarracudaCast, No. BR72214, $9.95.

D.H. Firestreak air-to-air missiles from BarracudaCast, No. BR72215, $9.95.

Eurofighter landing gear (for Hasegawa) from Scale Aircraft Conversions, No. 72135, $12.95.

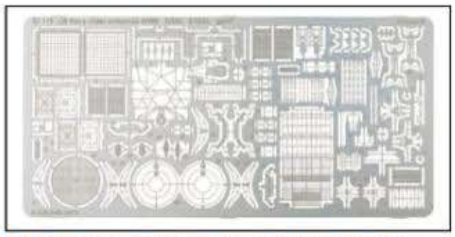
ARMOR DETAILS

1/35 SCALE

M10 mid-production (for Tamiya) from Eduard, No. 36349, $39.95.

SHIP DETAILS

1/350 SCALE



U.S. Navy radar antennas WWII Steel from Eduard, No. 53179, $29.95.

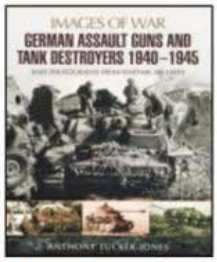
OTHER DETAILS

Cobblestone streets from Chooch Enterprises Inc. $12.99. 8654 small, 8656 medium, 8658 large. Peel and stick backing.

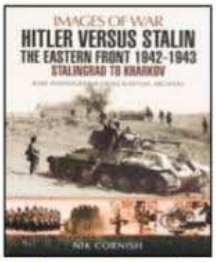
TOOLS

4-piece mini pin vise set from Squadron Products, No. SQ10262, $14.99.

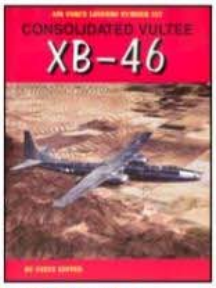
MEDIA



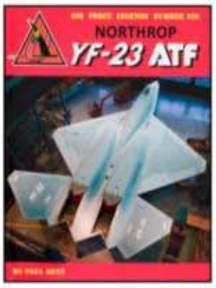
German Assault Guns and Tank Destroyers 1940-1945, $24.95, by Anthony Tucker-Jones, soft cover, 128 pages, all black-and-white photos, ISBN: 1473845988. From Pen & Sword Books Limited.



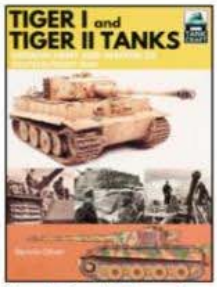
Hitler Versus Stalin — The Eastern Front 1942-1943 Stalingrad to Kharkov, $24.95, by Nik Cornish, soft cover, 132 pages, all black-and-white photos, ISBN: 1783463996. From Pen & Sword Books Limited.



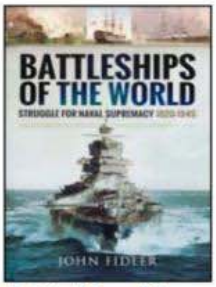
Consolidated Vultee XB-46, $21.95, by Steve Ginter, soft cover, 64 pages, 129 black-and-white photos, ISBN: 978-0-9968258-4-9. From Specialty Press.



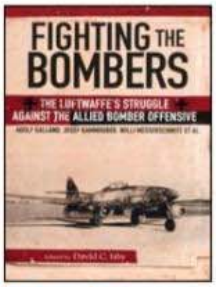
Northrop YF-23 ATF, $49.95, by Paul Metz, soft cover, 153 pages, all color photos, ISBN: 978-0-9892583-7-1. From Specialty Press.



Tank Craft: Tiger I and Tiger II Tanks German Army and Waffen-SS Eastern Front 1944, $19.95, by Dennis Oliver, soft cover, 164 pages, all black-and-white photos, ISBN: 1473885345. From Pen & Sword Books Limited.



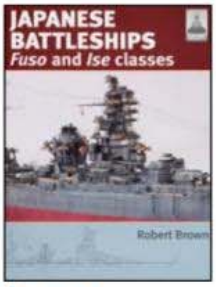
Battleships of the World — Struggle for Naval Supremacy 1820-1945, $32.95, by John Fidler, hard cover, 145 pages, all black-and-white photos, ISBN: 1473871468. From Pen & Sword Books Limited.



Fighting the Bombers - The Luftwaffe's struggle against the Allied bomber offensive, $19.95, by David C. Isby, soft cover, 256 pages, all black-and-white photos, ISBN: 978-1-4738-8273-7. From Casemate Publishers.

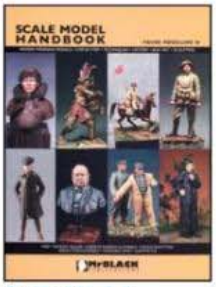
Spitfire II/V vs Bf 109F Channel Front 1940-42, $20, by Tony Holmes, soft cover, 80 pages, black-and-white photos, ISBN: 978-1-4728-0576-8. From Osprey Publishing.

The British Pacific Fleet — The Royal Navy's Most Powerful Strike Force, $42.75, by David Hobbs, hard cover, 462 pages, all black-and-white photos, ISBN: 978-1-84832-048-2. From Casemate Publishers.



Japanese Battleships: Fuso and Ise classes, $24.95, by Robert Brown, soft cover, 64 pages, mostly color photos, ISBN: 978-1-4738-8337-6. From Casemate Publishers.

Jagdgeschwader 53 'PIK-AS' Bf 109 Aces of 1940, $23, by Tony Holmes, soft cover, 96 pages, black-and-white photos, ISBN: 978-1-4728-1871-3. From Osprey Publishing.



Scale Model Handbook #18: Figure Modelling, $29.95, soft cover, 50 pages, all color photos, ISBN: 978-1-4728-1871-3. From Mr. Black Publications.

By Aaron Skinner

Spotting a Brummbär

How to punch up the camo on a Sturmpanzer IV

Retreating in late 1944, the German army began applying camouflage to armored vehicles to mimic dappled sunlight. Many comprised discs or dots of rotbraun and olivgrün over dunkelgelb.

Scott Conner, of Leawood, Kan., chose the latter when he built Dragon's 1/35 scale midproduction Brummbär.

The model is pretty much out of the box, except for resin Zimmerit attached with 5-minute epoxy.

He painted the infantry-support vehicle with LifeColor acrylics diluted with LifeColor thinner. "I eyeball it to about 50:50 — no exact measurement," he says. "Too thin is better than too thick; you can always add more color."

When he built the Brummbär, Scott was powering a Badger Spirit side-feed double-action airbrush with an old Badger compressor, the "kind that sits on the floor and goes *putter*, *putter*, *putter*," he says. "I have since bought a Grex compressor and I am much happier."

He airbrushed this model at 40 psi because he learned to spray that way with his first foray into the art without a regulator. That meant a lot of overspray and associated touch-ups.

After a base coat of dunkelgelb, Scott applied the rotbraun and olivgrün dots through holes in Tamiya tape made with a leather punch. He made seven different 1- to 2-inch strips, some with separated holes, others overlapping.

"I would put them at various places on the model and shoot one color, then remove the strips, reapply them in a different orientation, and spray a different color," he says. Scott repeated this process until he was happy with the camouflage.

"The tape was losing tackiness toward the end," he says. "And I was too lazy to make new ones!"

Most of the weathering was done with artist's oils. "Nothing is better, in my opinion," Scott says. "Lighter colors fade the paint to make it appear sun-bleached." He applies a small dot of color and blends it with paint thinner. Almost any color can be used; he's been known to try blue and even orange.

He added chips to the paint with a fine brush.

After trying other methods and techniques, Scott is back to using a dark wash around detail and light dry-brushing on high points. "It might not be very realistic, but it sure makes the model look good," he says. **FSM**

Zimmerit: *To show damage to the nonmetallic coating, Scott used resin Zimmerit from Atak. "It was easy to slice off what I didn't want with a hobby knife following the natural lines in the Zimmerit," he says. "Then it was glued on using 5-minute epoxy. The edges are painted an off-white since Zimmerit was mostly sawdust."*

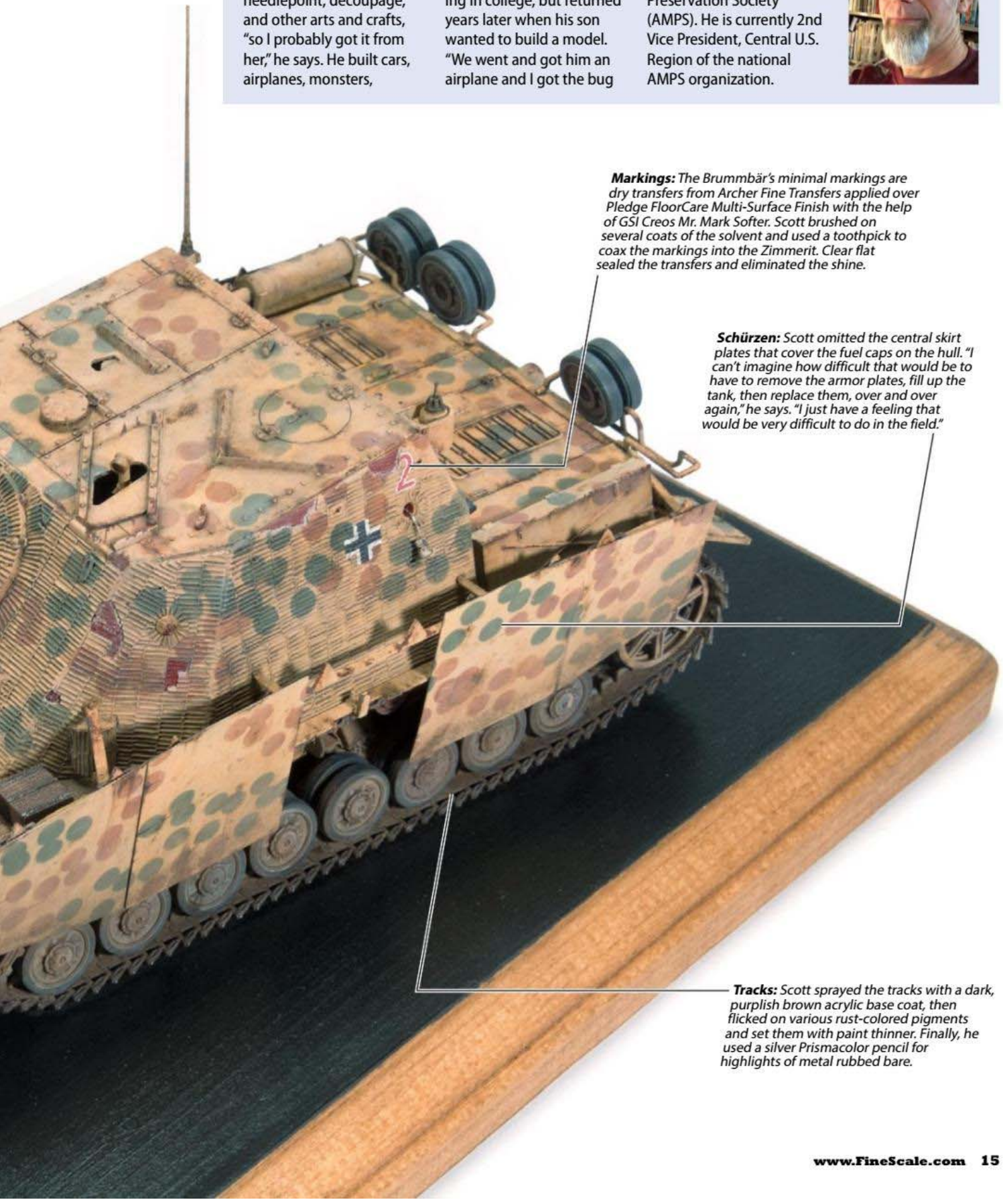
Tools: *After painting the metal parts flat black, Scott rubbed on graphite powder with his fingers. The jack block was painted dark tan; then a wash was applied to pick up the wood grain.*

Brummbär was the name used by the Western Allies to describe the Sturmpanzer IV. German troops referred to it as the StuPa.

– Kubinka Tank Museum www.tankmuseum.ru

Meet Scott Conner

"Like most, I started as a youngster," says Scott of his entry into modeling. His mother was into macramé, needlepoint, decoupage, and other arts and crafts, "so I probably got it from her," he says. He built cars, airplanes, monsters, knights, and superheroes before settling on armor in junior high and high school. He stopped building in college, but returned years later when his son wanted to build a model. "We went and got him an airplane and I got the bug again, bad," Scott says. His interest in armor led him to the Kansas City chapter of the Armor Modeling and Preservation Society (AMPS). He is currently 2nd Vice President, Central U.S. Region of the national AMPS organization.



Markings: *The Brummbär's minimal markings are dry transfers from Archer Fine Transfers applied over Pledge FloorCare Multi-Surface Finish with the help of GSI Creos Mr. Mark Softer. Scott brushed on several coats of the solvent and used a toothpick to coax the markings into the Zimmerit. Clear flat sealed the transfers and eliminated the shine.*

Schürzen: *Scott omitted the central skirt plates that cover the fuel caps on the hull. "I can't imagine how difficult that would be to have to remove the armor plates, fill up the tank, then replace them, over and over again," he says. "I just have a feeling that would be very difficult to do in the field."*

Tracks: *Scott sprayed the tracks with a dark, purplish brown acrylic base coat, then flicked on various rust-colored pigments and set them with paint thinner. Finally, he used a silver Prismacolor pencil for highlights of metal rubbed bare.*

By Joe Hudson

Three ways to a 5 o'clock shadow

Simple techniques add stubble to figures

Even men who shave daily show a hint of facial hair by the middle of the afternoon. Adding that stubble to soldiers implies time in the field, much the same as weathering their clothing or equipment.

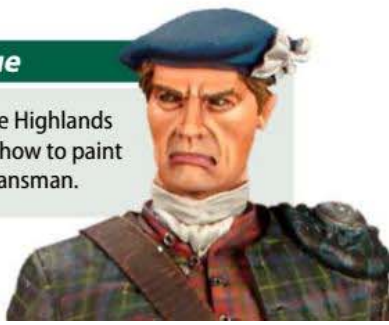
I use three mediums to paint thin 5 o'clock shadows — artist's oils, acrylic paints, and powdered pastels or pigments. To demonstrate them, I painted Alpine Miniatures' (www.alpineminiatures.com) 1/35 scale U.S. 3rd Armored Division set (No. 35219). The kit comes with four heads for two figures; I finished one of the bodies and three of the heads. I painted the faces with acrylics and applied bright highlights to the areas receiving stubble. That allowed the flesh to shine through the oils, acrylics, and powders.

Paints used

Grumbacher Payne's gray artist's oil (P156)
Vallejo Model Color beige red (70.804)
Vallejo Model Color Oxford blue (70.807)
Vallejo Model Color German gray (70.995)
Vallejo Pigments carbon black (73.116)

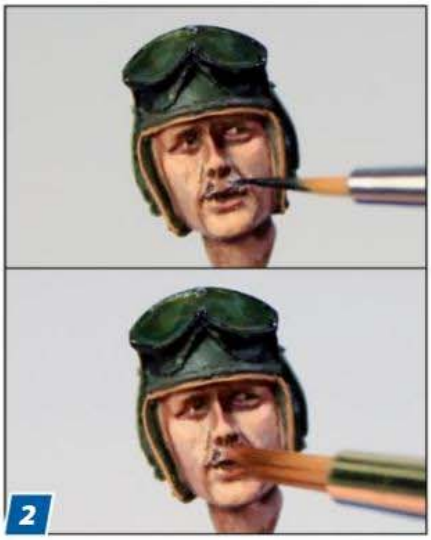
Next Issue

Journey to the Highlands as Joe shows how to paint tartan on a clansman.



Artist's oils

I squeezed a little Payne's gray artist's oil onto cardboard and let it sit so some of the oil leached out before painting. I used two brushes: one to apply the paint, the other to blend and smooth it on the face.



The hair starts with a small amount of artist's oil dabbed on each side of the upper lip. The second, clean brush gently blends the paint. Between each blend, I wiped the brush off on a soft paper towel to remove excess and avoid spreading the color. I added more color and blended again until I achieved the desired density.

As I added and blended paint for the cheeks, chin, and neck, I inadvertently got paint on the GI's lips. I dipped a fine brush in paint thinner and carefully removed the stray stubble without fear of damaging the acrylic base coats.

Acrylics

Of the three mediums described here, using acrylics requires the most patience. I started by painting a shadow mix of thin Oxford blue and a little beige red on the upper lip, chin, and jaw.

Concerned that the soldier's stubble looked more like a beard, I applied light glazes of beige red to mute the effect.

Thin glazes of German gray added depth and color to the shadow. I liked it, but noticed it was too heavy on the upper lip; more beige red softened the effect. Much like painting flesh, you may have to go back and forth to get it right.

Pastels or pigments

This is the quickest of the three methods, requiring little thought but some care. I loaded a small, stiff brush with carbon black pigments, a dark gray.

Scrub the powder into the cheeks, chin, and upper lip.

You may have to repeat this step several times to get the desired appearance, and you'll undoubtedly end up with pastels where you don't want them. The fix is simple: Take a damp brush and wipe the excess away. **FSM**

Squiggles made simple

Precisely applied liquid mask makes it easy /// BY PABLO BAULEO

During World War II, several air forces camouflaged their aircraft with wavy or squiggly patterns. Examples include the Luftwaffe, Reggia Aeronautica, and Imperial Japanese army.

Airbrushing these patterns freehand on scale models can be challenging. But it doesn't have to be difficult; I've developed a masking technique that turns a nightmare paint job into a breeze. It could even be used with spray cans.

I used it on Otaki's 1/48 scale Nakajima Ki-43 to camouflage it for the People's Liberation Army during the Chinese Civil War in the late 1940s.

Tip: Be careful when choosing a liquid mask. Some, like Microscale Micro Mask, Humbrol Maskol, and Mr. Hobby Mr. Masking Sol Neo, contain ammonia, leading to problems with acrylic paints. Check the labels before use and test it if you're unsure.

— FSM staff

Otaki's Ki-43 builds quickly and easily with just a few fit problems around the wing root and cowl flaps. Careful sanding took care of the first problem, but I found it easier to adapt a set of cowl flaps from my spares box — notice the slightly different plastic color — rather than correcting the kit parts.

Now for the painting: First, apply a uniform base color, using the shade that will be the color of the squiggles. In this case, I used light gray, which doubles as the lower-surface color.

Tools of the trade: liquid mask — I used Bob Dively Liquid Masking Film — a syringe, and blunt needles. I procured the latter from online sources. Get several needle sizes for different applications, but be aware that the surface tension of the liquid mask limits the width of squiggles to 1-2mm (1/64-1/32 inch).

Fill a syringe with liquid mask. Now, without dragging the tip of the syringe over the model — you don't want to scratch the paint — draw the squiggles on the model. Remember, you are masking the areas to remain gray. Practice how to apply the liquid mask before applying it to the model.

This is the model once all the squiggles are applied. This technique is very forgiving; if you don't like the pattern, let the liquid mask dry, pull it up, and reapply as needed.

After letting the liquid mask dry overnight, I airbrushed the main surface color. I usually mask the areas for the national insignia. In this case, I added wavy patterns around the insignia to reproduce the paint job on the original airplane.

A few hours later, peel off the liquid mask. The material is stretchy, and it is both fun and a bit messy to remove. Stripping the mask within a few hours minimizes the risk of a ridge forming along the edges of the paint as it dries.

The camouflage in all its glory: I masked and painted a black antiglare panel and wing walk, then attached the antenna mast. The wing and rudder were the underlying gray, so the national markings can be applied over a uniform color.

I finished the model with Bestfong decals (No. 48053), EZ Line for the antenna, a Mig Productions panel-line wash, and pastel chalk for engine exhaust. Antenna insulators were made by applying dabs of white glue and painting them white. **FSM**

Metal from ACRYLICS

Can water-based paints provide realistic natural-metal?

BY AARON SKINNER

For years, lacquers have dominated natural-metal finishes for models. Thin and airbrush-ready out of the bottle, brands such as Testors Model Master Metalizer and Alclad II shined many an airplane. Some were fragile and easily rubbed off during handling. All are flammable and the fumes are harmful, necessitating precautions when using them.

Acrylic paints have been a preeminent source for many modeling applications, but natural-metal finishes weren't something at which they excelled — until now, that is. AK Interactive and Acrylicos Vallejo have launched metallic finishes in the last few years to good reviews.

I decided to give Vallejo's Metal Color a whirl. These water-based paints are available in 17 colors and are airbrush-ready in the bottle.

The perfect canvas for this project was Eduard's 1/48 scale F-86F (No. 1163). Based on Hasegawa plastic, the kit includes photo-etch (PE) details and a resin ejection seat. I built the basic airframe, including the detailed cockpit, straight from the box.

Surface preparation

With the assembled airframe on the bench before me, I really wanted to start painting. But any metallic finish demands a perfectly smooth surface. The thin, shiny paint will reveal the smallest blemish, even scratches left by fine sandpaper. Take time now and you'll avoid heartache later.

I made seams the first order of business, smoothing each with progressively finer sanding sticks to eliminate steps. Super glue filled any gaps, ***1***. A mismatch meant the end of the Sabre's tail wasn't square; a few passes with Goodman Models super sanding blocks fixed the problem.

After rescribing panel lines lost during seam repair, I lightly rubbed the airframe with 1200-grit sandpaper to eliminate burrs and ridges left by the scriber.

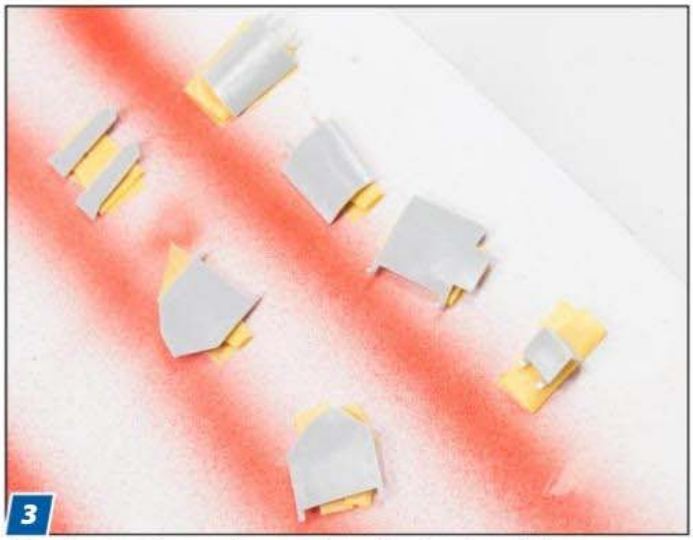
Before hitting the spray booth, I tacked the canopy in place with small dots of Deluxe Materials Glue 'n' Glaze and covered it with the kit masks. The previously painted wheel wells and speed-brake bays were also masked, ***2***. Don't forget to prep parts not yet attached to the airframe, such as landing-gear doors; treat them the same as the rest of the model, ***3***.

I wiped the model with isopropyl alcohol to remove oils which could hamper acrylic paint adhesion.

To match the canopy frame's interior with the cockpit, I lightly airbrushed the

A small insert behind the cockpit fit poorly, so I filled the area with super glue. After speeding the adhesive's drying with kicker, I sanded the part flush.

I filled the previously painted wheel and speed brake bays with Silly Putty, using a toothpick to push it into corners and ensure tight seals at the edges.



After cleaning the gear doors and speed brakes, I taped them to a piece of scrap styrene for painting.

Keep the primer coats light and gradually build up the density to avoid obscuring detail such as the PE filler cap on the Sabre's drop tanks.

clear parts with Vallejo's acrylic-polyurethane black surface primer (73.602).

Prime time

Vallejo recommends using a primer under Metal Color if you plan to mask. But a coat of light gray also will reveal underlying surface problems and unfinished seams. I sprayed the model with light coats of Vallejo gray primer (73.601) mixed with a few drops of Vallejo thinner (71.161), paying special attention to the joints, ***4***. Leading and trailing edges are easily overlooked during initial cleanup, but under paint any gap there will stand out like a zit on your nose as you head out for a date.

I spent considerable time filling and fixing gaps and seams with super glue and accelerator, then sprayed those areas with another light layer of gray primer to check my work.

Airbrushed paint often dries a little on the way to the surface and produces a slightly rough finish. So, the next day, I gently rubbed the model with 1200-grit sandpaper to smooth it.

Back in black

Like Alclad II lacquers, Vallejo Metal Color's shine gains depth when applied over gloss black. I sprayed the model with Vallejo's specified primer (77.660), ***5***. After hitting corners and recesses, I broadened the spray pattern to paint the rest.

Don't spray a finish coat in one pass. Instead, the first pass should be light and leave the surface looking sprinkled. The next passes will even out the density and gradually build the shine, ***6***.

A day later and the Sabre looked nice and jet black (see what I did there?), but a texture disfigured the finish. I knew it would ruin the metallic sheen, so I set about polishing the surface.

First, I lightly went over the surface with 600-grit sandpaper, going in circles, ***7***. Be patient; pressing too hard will deeply scratch the paint, exposing the gray primer or plastic. In that event, lightly spray more black over affected areas.

Once I was satisfied with the results of this critical first step, I repeated the process with 1200- and 1500-grit sandpaper. The idea is to smooth scratches left by the coarser sandpapers.

To return the paint to its glossy glory, I turned to a micro finishing set from Alpha Abrasives (No. 3000) that consists of sanding cloths in six grits — 3200, 3600, 4000, 6000, 8000, and 12000 — and a foam block. For best results, use them in order, from coarsest to finest, and don't skip a grit. They can be used wet or dry, but I recom-

To ensure even coverage, I first sprayed black primer into the corners, such as wing roots, and around details, like the wing fences.

After several light passes, the doors and speed brakes look all shiny and black. But look closely and you will see an orange-peel texture.

The first passes with 600-grit sandpaper should even out the surface. You'll know you're done when the black looks uniformly flat without glossy spots.

I dipped my finger in water and dabbed it onto the model for sanding. Don't flood the surface, because that will prevent the abrasive from reaching the paint.

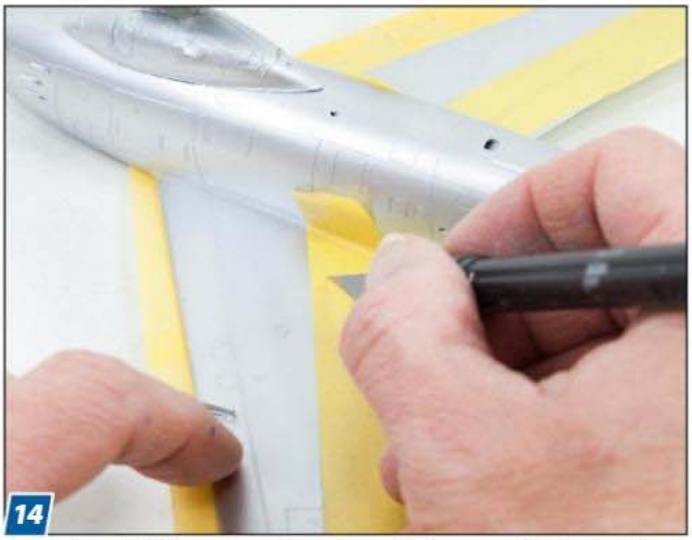
I didn't use the foam block, preferring to be able to feel the surface through my fingertip.

Looking like quicksilver, Vallejo Metal Color aluminum is airbrush-ready straight from the bottle. A few drops of thinner will aid flow.

The thin first layer of aluminum puts a shine on the black. A piece of styrene H column inserted in the jet pipe serves as a handle.

More passes and the model looked like it was made of metal — and the paint dried in minutes.

I polished the Sabre with a 12000-grit sanding cloth to eliminate minor grain from the surface.



To mask an odd shape, I gently cut through the tape with the tip of a new No. 11 blade run along the panel line.

mend wet to prevent debris from clogging the abrasive, ***8*** and ***9***.

When I reached the end of the process, the black paint was smooth. But it wasn't as glossy as the primer looked out of the bottle, a function of all the sanding. Adding a little flow enhancer and/or retarder to the black primer may have produced a smooth finish out of the brush and prevented the need for polishing.

Shoot to thrill

With days of preparation under my belt, the moment of truth had arrived — time to spray some metallic acrylic paint. I started the Sabre with a base coat of Metal Color aluminum (77.701). Shake the paint well — it's ready when only bubbles are visible through the bottom when you flip the bottle — then squeeze a little paint straight into the airbrush reservoir, ***10***.

I set the pressure at 15 psi and misted the first layer of metal over the model, ***11***. A couple of passes later and the Sabre was smooth, shiny, and ready for more color, ***12***. I quickly cleaned the brush with water, then lacquer thinner. The first coat was dry to the touch by the time I was done, but I waited until the next day to begin masking to vary the surfaces with different shades.

Passing a finger over the paint revealed a slight texture I eliminated with fine sandpaper, ***13***. In addition to smoothing the surface, this improved tape adhesion.

I masked with Tamiya tape, starting with the center panels on the wings and horizontal and vertical stabilizers, ***14*** and ***15***. Then I sprayed the panels with semi-matte aluminum (77.716).

Removing the tape a few minutes later, after I cleaned the airbrush, revealed nicely delineated center panels, ***16***.

More masking followed, ***17***. I painted the gun muzzle panels dark aluminum (77.703) and the large panels aft of the gun access panels on either side duralumin (77.702). Mixing different amounts of aluminum and duralumin produced subtle variations between panels and access hatches on the fuselage and wings.

The rearmost section of the fuselage, around the exhaust, is a mix of 2 parts dark aluminum and 1 part gloss black primer. With the paint dry enough to tape over in just minutes, I did all of this shading in one session. There is no limit to this process other than how much masking you want to apply.

Concerned that the contrast of the panels was too great, ***18***, I misted straight aluminum over the model, ***19***.

Finally, I airbrushed the landing-gear legs, wheels, and speed brake actuators dark

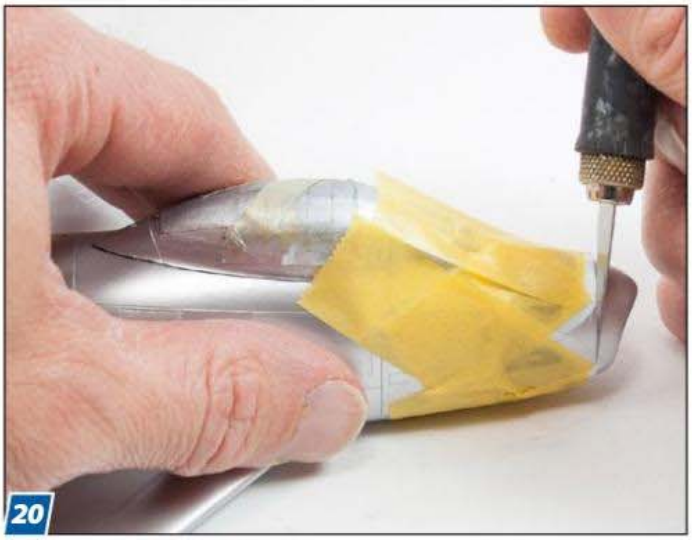
Gingerly placing the tip of the knife under the edge of the tape, I lifted it from the surface.

I pulled the tape off the surface gently and it left the surface undamaged. This is tough paint!

To speed the process, I masked a bunch of panels. After spraying some with one mix of aluminum and duralumin, I added a little aluminum to the paint cup on the brush and sprayed other panels.

The differently toned panels stand out pretty well after all the work — too well, in fact …

… but a light coat of aluminum, the base color, unified the finish and softened the contrasts.

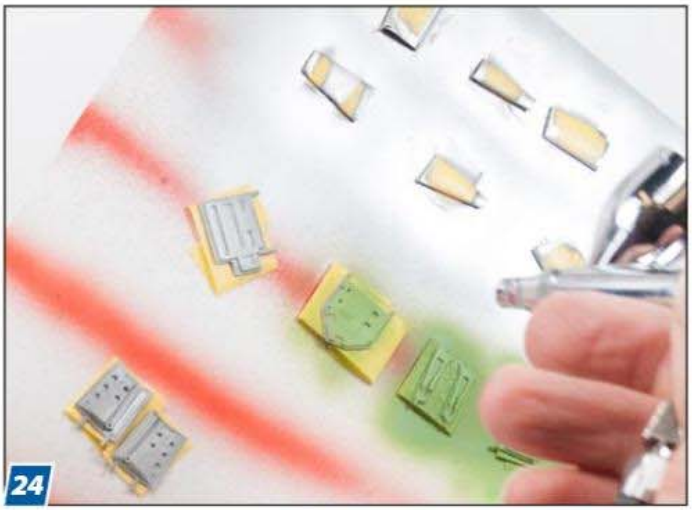


Between the contours of the nose and the tapered sections on either side, masking the nose requires a lot of curves. I used Tamiya tape for curves to edge the section before spraying Tamiya blue (X-4).

The tail was easier, because a large decal would cover the lower edge. All I had to mask was a natural-metal section at the front. Italeri acrylic light gray (No.4765) provided the color.

If you've ever played with Shrinky Dinks, then the effect of heat on a decal will come as no surprise.

Carefully airbrushing Vallejo matte varnish (70.520) at 12 psi allowed me to control the spray pattern and restrict it to just the markings, dulling the shiny decals for realism.



It proved better to paint the doors' and brakes' outer surfaces first because those smooth surfaces were easier to mask for the interior color, rather than the other way around.

aluminum. The kit's mask covered the hubs, and I sprayed the tires with Tamiya German gray (XF-63).

Before removing the Silly Putty masks from the wheel and brake wells, I ran a sharp blade along the edges.s. The acrylic paint forms a skin, and it's easy to damage the surfaces around the masks without this precaution.

Decals and weathering

Eduard provides decals for most of the markings on Lt. Ken Ewing's Korean War Sabre, but I had to paint the nose, ***20***, and tip of the vertical stabilizer, ***21***.

I chose not to protect the metallic paint with clear (see sidebar), and I was concerned about using decal-setting solutions; some can affect acrylic paints. Instead, I applied each marking and blotted excess water by rolling a cotton swab across the marking. A hairdryer on high settled the decals into panel lines, ***22***. The kit's decals are beautifully printed, but looked too shiny on the wartime fighter, ***23***.

Before applying decals to the speed brakes, I taped them and the gear doors facedown (off the model) and airbrushed Testors Model Master Acryl green zinc chromate (No. 4852) on the inside surfaces, ***24***.

The thin paint and differently toned panels expose the recessed panel lines quite well, minimizing the need for washes. But I wanted to set control-surface boundaries and certain panels apart, so I applied artist's oil pinwashes to those spots, ***25***. Concerns about the effect of the Turpenoid used for the washes further restrained their application. I wiped excess off in the direction of airflow so any residue looked like fluid streaks.

I installed the landing gear, speed brakes, ejection seat, canopy, and pitot tube to finish the build, ***26***.

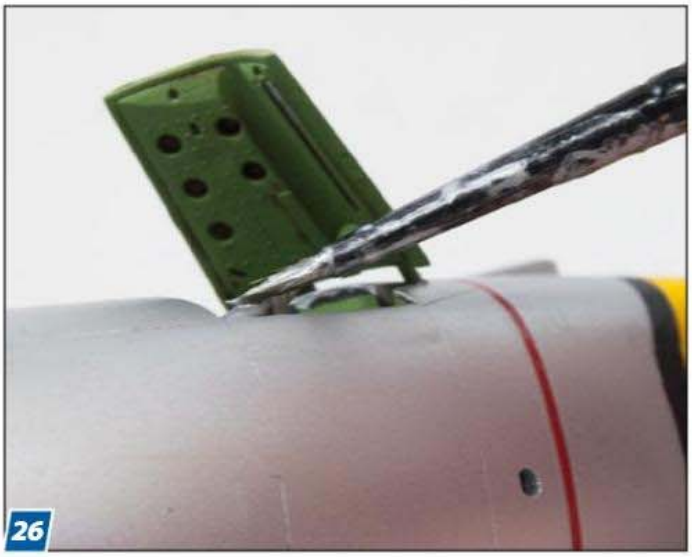
Conclusion

The finish looks like slightly weathered aluminum, perfect for a well-maintained but operational frontline fighter. A glossier black base coat might have produced a brighter shine.

As with all natural-metal finishes, the hard work comes before you ever spray metallic paint. But I liked how easy these were to apply. They have no noticeable odor and are very tough, standing up to handling during final assembly better than any other metallic paint I've used.

I will definitely use them again and I aim to try AK Interactive's Xtreme Metal acrylics on a P-38 in the near future. Stay tuned! **FSM**

I mixed Winsor & Newton burnt umber with Turpenoid and let the wash flow around the edges of the ailerons, flaps, elevators, and rudder.



I had to touch up a couple of struts and actuators. As it turns out, Vallejo Metal Colors hand-brushed pretty nicely on small areas.

Clear-coat conundrum

To be perfectly honest, I finished this Sabre twice: Not out of choice, mind you, but because of a bad decision — a decision I knew in my heart was bad as I was making it — that forced me to sand the first finish off and start over.

That decision? Applying a clear coat over the natural-metal finish.

Vallejo recommends it to protect the paint against weathering — a perfectly rational reason — and has a metal varnish (77.657) specially formulated for the task.

Doing so on any metallic finish is a serious consideration. Sure, it protects the paint from weathering and decal-setting solutions as well as handling. But most clear coats dull the sheen, creating a less-natural appearance.

However, given that this was the first time I'd used the paints, there were a lot of decals, and I wanted to use artist's oil washes, it seemed a good idea.

Unfortunately, despite using flow enhancer and retarder, the varnish refused to level out on the model and the result was anything but glossy. In fact, the surface was more akin to a golf ball than a plane.

Out came the 400-grit sandpaper. By the time the surface was smooth, it was down to black and gray primer in places.

Lesson learned, I applied more black primer and polished it smooth before redoing the metallic finish.

Lt. Ewing's F-86F stands ready for a mission. I prefer subtle variations between panels on natural-metal aircraft, but Vallejo Metal Color paints offer a lot of choices for wilder finishes.

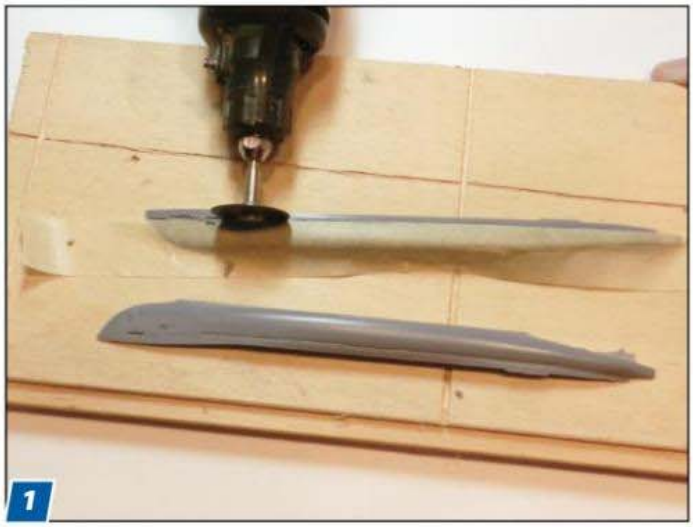
The death of *I-171*

Plastic kits, LEDs, and resin — a *lot* of resin — key this display /// BY LUKE EASTER

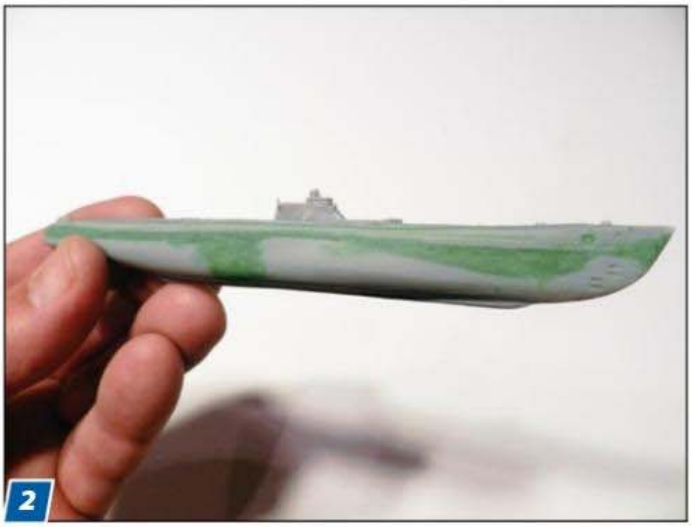
This diorama represents the final moments of the Japanese submarine *I-171*, sunk at the hands of American destroyers USS *Guest* and USS *Hudson* just west of Buka Island in early 1944. It was *Guest* that scored the initial hit; *Hudson* finished it off.

To show the scene both at the surface and below, I used clear casting resin for the water. Sounds straightforward enough, but it was a process that took more than nine months of experimenting with the resin, dye, and catalyst. After ruining five models — three submarines and two destroyers — I finally got it right.

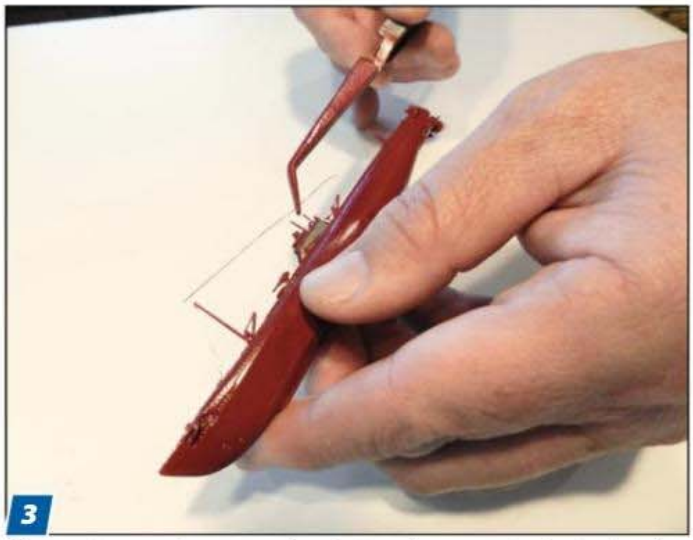
The project took 11 months and about $500 (mostly for failed resin experiments). Ultimately, I hope I captured the drama of a battle that cost the 68 men of *I-171* their lives.



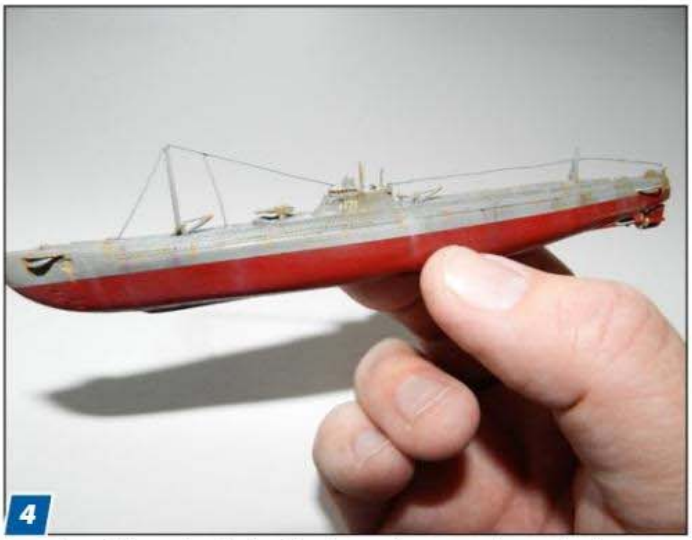
Hasegawa's 1/700 scale *I-171* is available only as a waterline model, so I needed two kits to make a whole submarine. Using a saw in a motor tool, I sliced off the lower hull from an *I-400* kit.



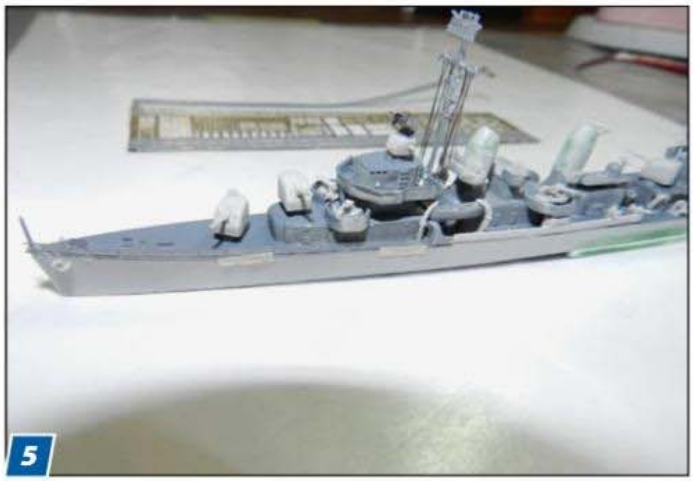
I filled the sub with bathroom caulk to prevent air bubbles from escaping when it was submerged in resin. Squadron green putty smoothed the join of the sub's deck and hull.



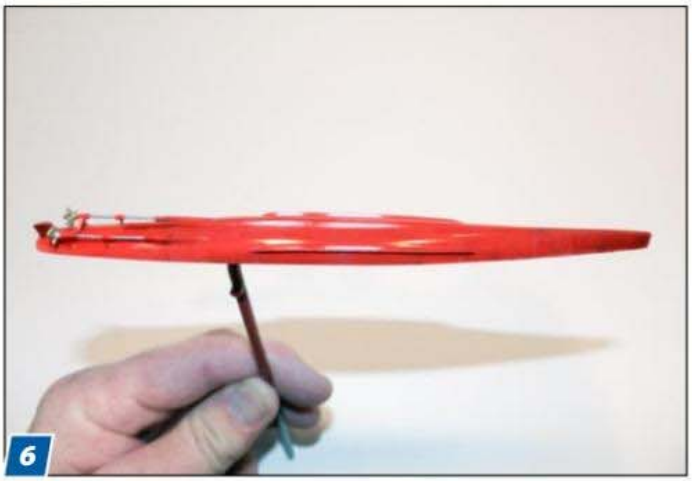
When resin cures, it gets very hot. So, I used copper wire for rigging that wouldn't melt. Painting begins with antifouling red.



I weathered the sub with dot filtering and a raw umber wash, then applied several coats of clear gloss to protect the paint.



My *Hudson* is Trumpeter's USS *Sullivans*, another *Fletcher*-class destroyer. I used photo-etched (PE) rails from Tom's Modelworks and a technique I learned in *FSM*, tacking the PE with masking tape to apply super glue. Applying accelerator set the super glue and loosened the adhesive on the tape for easy removal.



I painted the destroyer's hull and clear-coated it before setting it on the resin surface.

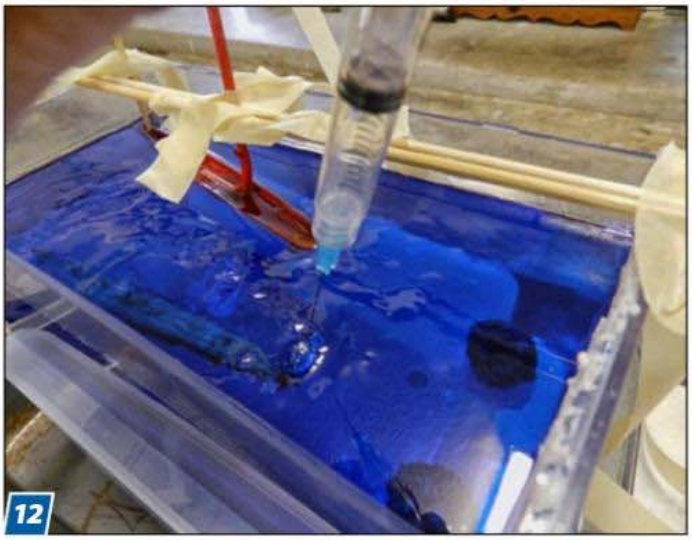
To make a depth-charge blast, I rolled rice-sized pieces of clay into a ball and coated it with white glue …

… then used the ball for molds to cast it in clear resin. Inserting straws in the resin created a conduit for a flickering LED to light the blast.

I painted the blasts yellow, gray, and black, colors you see in an explosion. A coat of clear gloss protected the paint from the resin.

The blasts are installed in the flask that will receive the resin. I sealed the bottom with clear silicone.

Months of experimentation finally revealed the proper proportions: Each of these contains 2 cups of Castin' Craft resin, 23 drops of dye, and 26 drops of catalyst. I did a single pour of 10 cups.



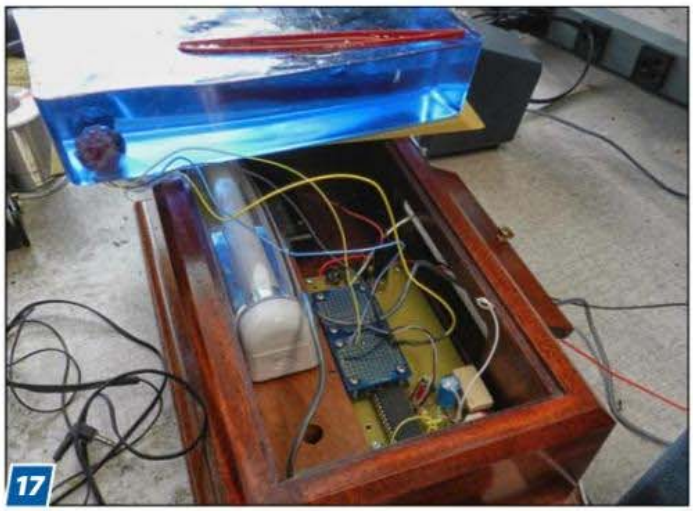
I submerged *I-171* in the resin and used a hypodermic needle to inject bubbles denoting damage to the sub. The *Hudson* hull is set in the resin surface, ready to receive the superstructure later.

The resin brick came out of its flask looking opaque, requiring extensive wet-sanding …

… as well as power-buffing to achieve transparency.

A coat of Pledge FloorCare Multi-Surface Finish increased clarity and furthered the shine.

I replicated the destroyer's wake with white bathroom caulk and used enamels to paint an oil slick from the mortally wounded sub.



Within the pedestal base are electronics that run the LEDs as well as a sound chip connected to a motion sensor that plays explosions when people walk by.

I sculpted the sea with Master's Touch acrylic blue paint and Liquitex gloss heavy gel medium; depth-charge explosions were formed with bathroom caulk. Like the crews of the destroyers that dealt them their fate, the men of *I-171* were fighting for their country. I would like to honor them all. **FSM**

▲ **JOHN HAFNER**
CORAL SPRINGS, FLORIDA
Returning to the hobby after nearly 40 years, John weighed anchor with the Encore/Squadron 1/232 scale USS *Olympia*. He used Testors and Tamiya paints to spray-paint the hull and superstructure, then hand-painted details. John says, "I chose this one to display a series of models illustrating the evolution of the American battlewagon. I know it's technically not a battlewagon, but I just loved the kit." However, he plans to make his next modeling voyage with Trumpeter's 1/350 scale USS *New York* (BB-34).

▶ **LI PO-TA**
TAIPEI, TAIWAN
Mr. Li built Tasca's 1/35 scale M32B1, a Sherman-based armored recovery vehicle converted from the M4A1.

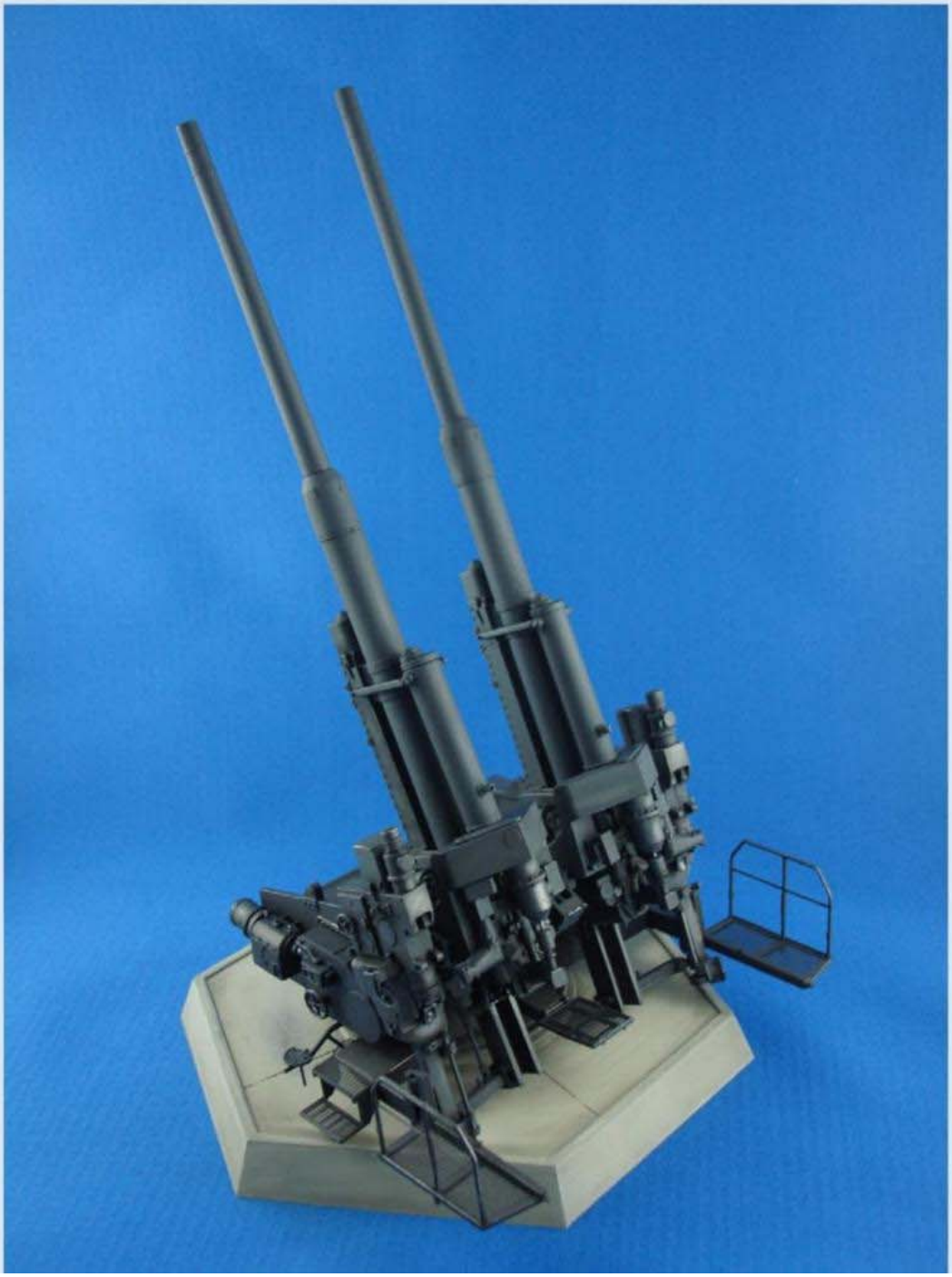
◀ ROBERT HOLMSTROM CARY, NORTH CAROLINA
"This is one of the best engineered kits I have ever built," says Robert of the Academy 1/35 scale Merkava Mk.IV. He installed Friul-model tracks and a Legend Productions turret basket, and spent 30 hours on the ball-and-chain armor behind the turret. LifeColor paints provided the Israeli colors.

▶ IOANNIS ZORBIDIS THESSALONIKI, GREECE
Spending an hour or two every day for five or six months, Ioannis gave Tamiya's 1/12 scale Honda Pons RC211V '03 Biaggi bike a thorough workout. He added: a Model Factory Hiro bike chain set; Top Studio electrical connectors and caliper spacers; a Scale MotorSport detail set; a Tamiya fork set; Caliber35 resin bolts and nuts; Detail Master cables and lines; Crazy Modeler fasteners; HobbyDesign tubing; and sundry other items. He spent more than nine weeks on painting alone, finishing with a high gloss as he worked his way from 3200 to 12000 grit.

◀ JOHN PAYNE OAKLAND, NEW JERSEY
John built Freedom Models' F-20 Tigershark from the box, then armed it to the teeth. "Fighters look meaner with lots of missiles, so I loaded this poor little thing up with two Sidewinders and four AIM-120s, all of which were included in the kit," he says. He inducted his F-20 into the Taiwan air force, which he says required six roundels — but the kit provided only four. "So, I created my own decals using CorelDraw and my precious ALPS printer, and referred to online photos to create more markings and the 5th TFS squadron badge." He finished the fighter with Testors Model Master enamels.

▲ MIKE GRANT
CALGARY, ALBERTA, CANADA
Don't bother looking for these decals! They were a do-it-yourself job for Mike, a professional decal maker who employed his ALPS printer (which prints white). He says he marked the Airfix 1/72 scale BAe Hawk 100 "in a spurious Formula 1 racing scheme as if piloted by Nigel Mansell. The scheme is based on an online profile by Clavework Graphics and suits the Hawk perfectly; its nose contours are pure F1. The underside gun pack might be considered an unfair advantage."

▶ CLAUDE ZERINGUE
PEARL RIVER, LOUISIANA
Claude finished Takom's 1/35 scale 12.8cm FlaK 40 Zwilling anti-aircraft gun with Floquil enamels, Prismacolor pencils, and powdered graphite. Stationed on towers, the FlaK 40 could fire 20 rounds per minute to a ceiling over 48,000 feet — but in the Battle of Berlin they were pointed down to fire at the advancing Soviets.



ERCAN KARAKAŞ
ISTANBUL, TURKEY
How does one pass the time living by the Sea of Marmara, the Golden Horn, and the Bosporus? Ercan built Bandai's 1/48 scale *Star Wars* AT-ST.

Kitbash a better Bison

Accuracy demands two kits and aftermarket add-ons /// BY BILL PLUNK

Dragon and Alan 1/35 scale kits and aftermarket accessories were needed to fulfill Bill's parts desire.

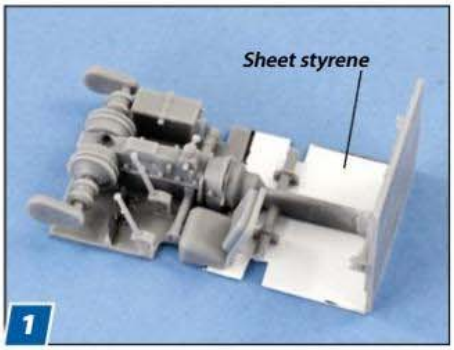
The Bison I — or, going by its full name, the *15cm schwere Infanteriegeschütz G33 auf Fahrgestell PzKpfw I Ausf B* (heavy infantry gun on *Panzerkampfwagen* IB chassis) — was an attempt to provide mobile artillery support to advancing infantry units. The design concept was simple: Box up a 15cm sIG33 gun and put it on a cut-down PzKpfw I chassis. The conversion was done by Alkett, which produced 38 of the vehicles in February 1940.

For this project, I modeled Gun B, or *Bismarck*, in service with sIG Kompanie 703 during the French campaign, May-June 1940. The project is a 1/35 scale kitbashing exercise that combines Alan's Bison I (No. 019) with Dragon's PzKpfw I Ausf B DAK (6207). Additional replacement parts include Modelkasten's PzKpfw IB working tracks (SK-32), Model Point's sIG 33 turned-aluminum barrel (3557), Eduard's photo-etch (PE) Bison I detail set (35813), Bison Decals markings, and Tiger Model Designs' (TMD) resin sIG 33 gunsight and resin wicker 15cm ammunition cases from its sIG 33 ammunition set (No. 352071).

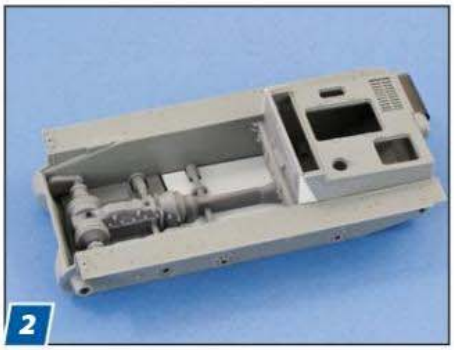
The inside story

With an open-topped vehicle, the first order of business is the interior. The Dragon kit has hull, suspension, and engine-deck detail superior to the Alan parts, but no interior detail. Let the kitbashing begin!

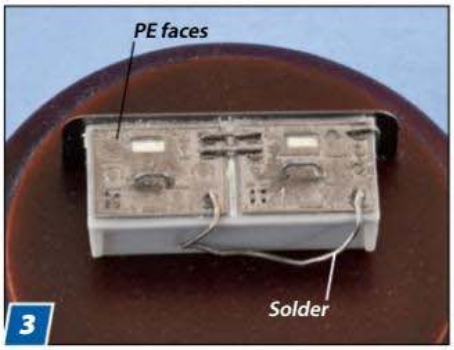
Since the Dragon hull has a molded-in transmission access hatch, the forward parts of the interior wouldn't be exposed. But everything in back of the driver's seat would be visible below the gun. Integrating the Alan interior parts with the Dragon hull required careful fitting and modifications. The floor insert didn't extend all the way back to the firewall, so I had to use sheet styrene (with cutouts for the axle hubs), ***1***. The Dragon suspension elements are designed to extend into the interior, so I trimmed the Alan axles to provide clearance. All the interior elements had to



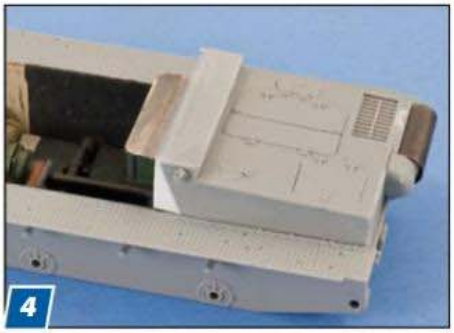
Bill installed a sheet-styrene floor to adapt the Alan interior to the Dragon chassis.



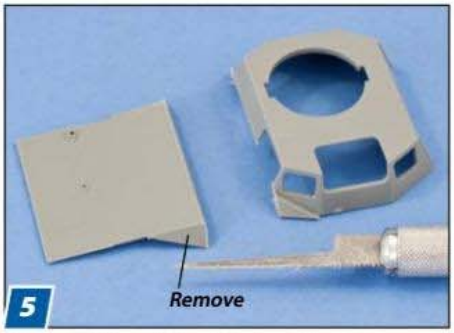
Triangles of sheet styrene adapt the engine deck to fit the Alan interior.



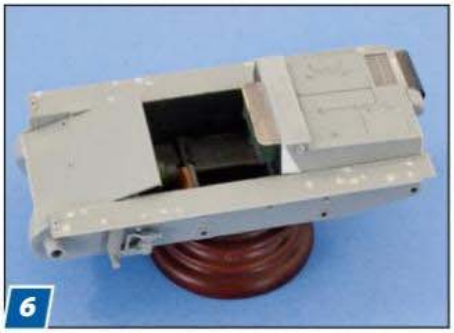
Bill wired the wireless with fine-gauge solder and added PE radio faceplates.



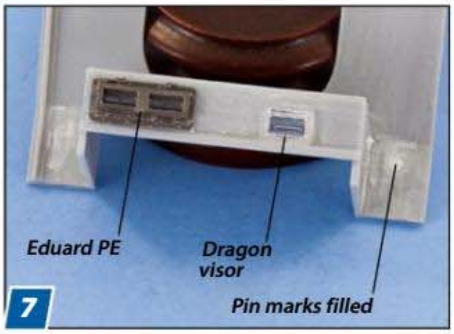
The Dragon kit included *tropen* engine-deck hatches for desert operations, but also standard hatches better suited to European climes — Bill used those.



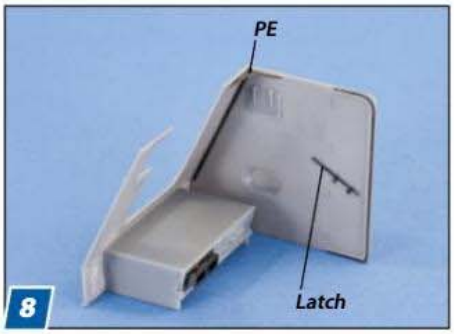
Bill sawed the glacis plate from the Dragon superstructure and snipped off its triangular plates with a sprue cutter.



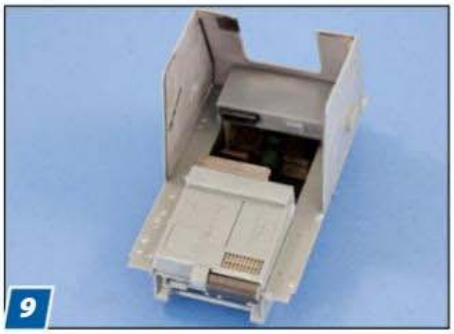
It's a Bison, not a PzKpfw I; locating holes meant for different stowage on the Dragon fenders are filled in.



On the fighting compartment's front plate, Bill installed an Eduard PE double view port for one and cut open a Dragon plastic visor for the other.



The dark strips are PE — Bill removed plastic from the Alan front plate and replaced the reinforcing strip. He also added latch detail to the hinged plate.



Test-fitting the Alan superstructure on the Dragon chassis: So far so good!

match with the firewall, which matched with the engine deck, which had to meet the rear hull and fenders. All those sections were dry-fit to check alignment. The Dragon rear deck needed triangular styrene extensions to match the deck with the firewall; I made those with sheet styrene, **2**.

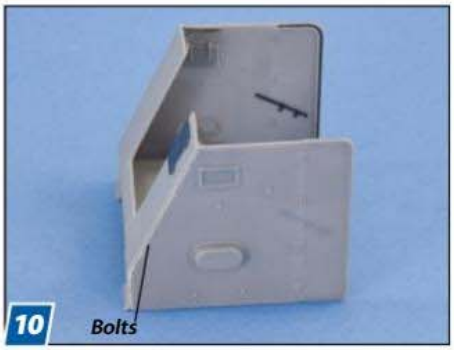
Once everything lined up, I attached the firewall and drive-shaft cover to the floor extension and installed and painted the remaining interior parts. I "turned up" the radio with fine-gauge solder and Eduard PE faces, **3**. Then I installed the engine deck and sanded the joint with the firewall smooth where it mated with the air intake. Standard engine-deck hatches for the PzKpfw IB also included in the Dragon kit were installed instead of the *tropen* hatches meant for the DAK (*Deutsches Afrikakorps*) version, **4**. Just a bit of putty was needed at the rear join of the lower hull.

Superstructure

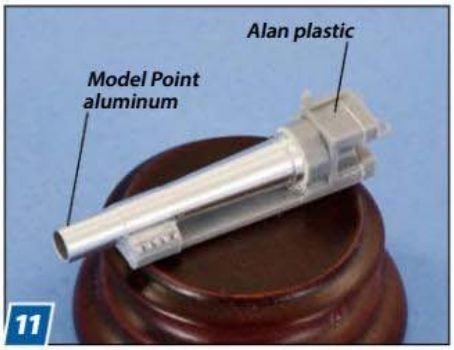
Now to join the Dragon hull and Alan superstructure: Using a keyhole saw, I cut the Dragon glacis from its PzKpfw IB superstructure, **5**, sanding the rough edges and snipping off the triangular plates with a sprue cutter. The locating holes on the Dragon fenders for the pioneer tools were filled and sanded, as the Bison stowage differed from the PzKpfw I, **6**.

The Alan superstructure's front plate needed work. The Bison had two vision ports: a double port for the driver and a single port to the right. I cut out the holes and fitted one of the visors from the Dragon kit to add the latter detail, and used Eduard PE vision-port parts in place of the chunky Alan parts for the driver, **7**. Ejector marks were filled and sanded smooth.

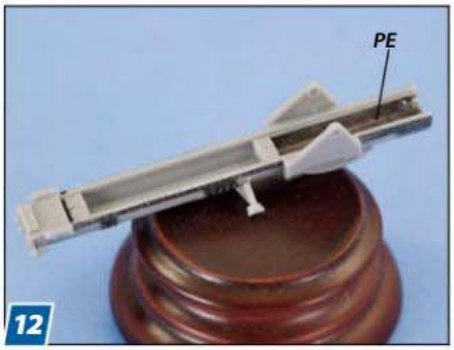
I cut the over-scale reinforcing strips from the front plate with a No. 11 blade, sanded it smooth, and replaced the strips with PE, **8**, along with an angled bracket at the top between the front and side plate. On the side plates, I added a bolt strip around the hinged rear flap and used PE to create the angled locking bar that secured it. Then I test-fitted the Alan structures with the Dragon glacis plate and fenders, **9**.



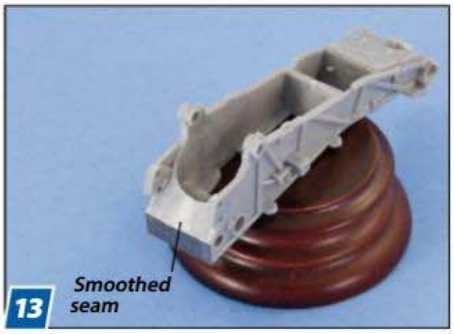
Filling and smoothing seams at the edges of plates, Bill was careful to avoid damaging fine bolt detail in the molding.



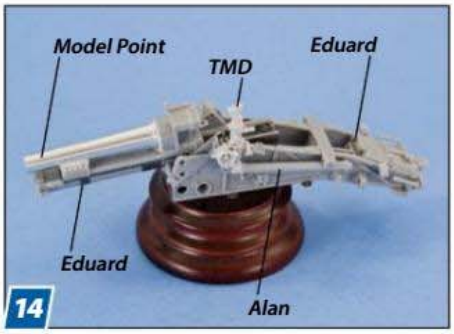
With some filing, the Alan gun mount received the Model Point turned-aluminum barrel.



Eduard PE provides detail and covers a few flaws on the recoil sled.



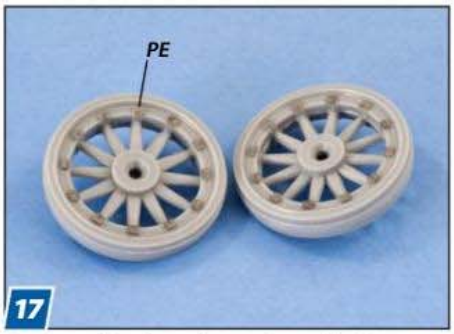
It was a poor fit for the gun-carriage halves, but Bill smoothed it out.



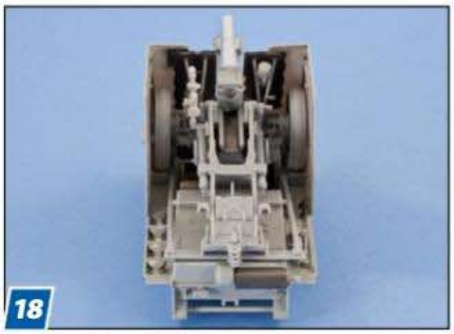
Gray plastic parts are from Alan; the light gray gunsight is from TMD; darker PE is from Eduard; and the aluminum barrel is from Model Point.

Thinner PE splinter shields up front are an upgrade over the plastic kit parts in terms of scale thickness and detail.

And you thought the gun was loaded! No, there's more to add — traces, carriage wheel hubs, and gun-shield supports.



Carriage wheels are dressed up with PE, too.



Now the Bison's fighting compartment is slam full of stuff!

Finally, the seams on the exterior of the side plates were precisely filled and sanded with care to avoid damaging the fine bolt detail, ***10***.

That big gun

Alan's 15cm sIG33 gun required work to receive the Model Point aluminum barrel. I assembled the breech and attached the barrel, using putty to fill gaps in the Alan parts, ***11***.

The gun mount and recoil tray fit poorly, due to oversized or misaligned mating pins; I removed these and sanded to get it together, ***12***. Molded bolt detail was replaced by PE, including a nice one-piece insert for the interior of the recoil sled that covered the large join seam and provided additional detail.

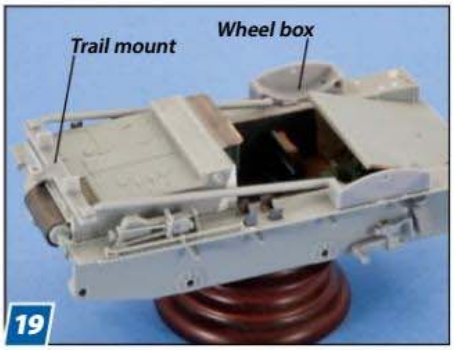
The two-piece base of the gun carriage also had misaligned locating pins. I sanded these off and test-fitted frequently, ***13***. A small strip of styrene, glued on the inside, served as a foundation for the putty I needed to smooth the carriage's front.

Once that had been settled, remaining details were added, ***14***. Eduard PE replaced the solid eyes on the lower edge and added hinge detail to the toolbox in the gun trail. I substituted the TMD gunsight for the inferior Alan part.

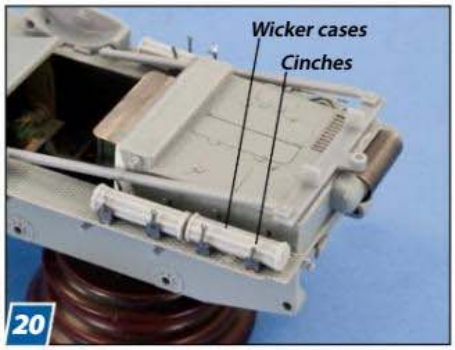
The gun's splinter shield is entirely Eduard PE, a great improvement on the over-scale Alan part, ***15***. I joined this assembly with Gator's Grip Hobby Glue, an acrylic-based adhesive that allows more work time than super glue. I did use gel-type super glue to attach the shield, first to the lower mount points, then carefully angling it to the upper points.

The remaining pieces of the gun carriage to support the large carriage wheels were installed, ***16***. The carriage wheels are detailed with PE parts, ***17***; I left the wheels off for the moment.

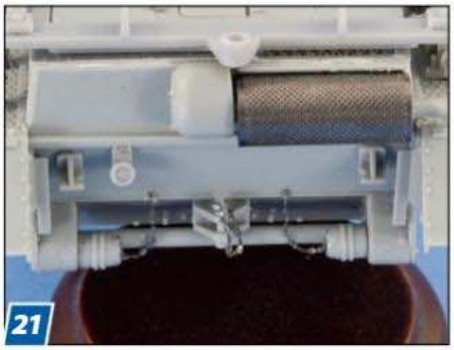
Once the gun carriage was complete, I test-fitted it with the superstructure to determine exact placement for the wheel boxes and bracing arms for the trail mount bar across the rear hull, ***18***. The Alan superstructure didn't match the spacing on the



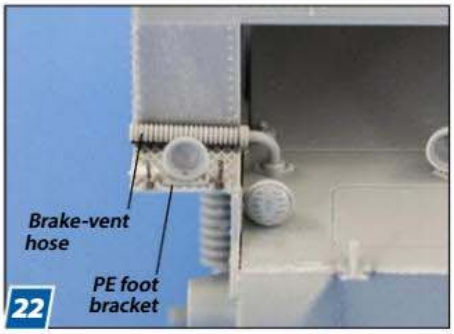
Wheel boxes and the trail mount are in place to counter recoil and keep the gunner from getting an *Infanteriegeschütz* all over himself.



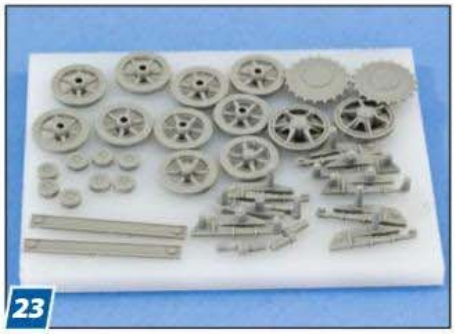
Wicker ammo cases and their cinch belts are test-fitted on the fender.



Bending up the "dog chains" for the idler caps made them look more natural.

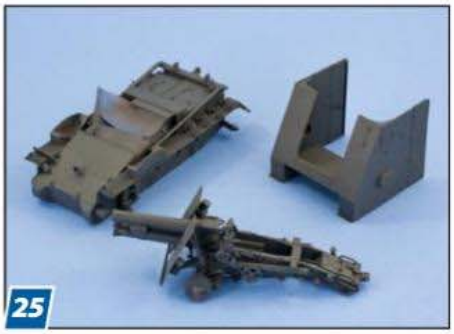


The brake-vent hose was modified by cutting it to size and drilling out the solid end with a pin vise.

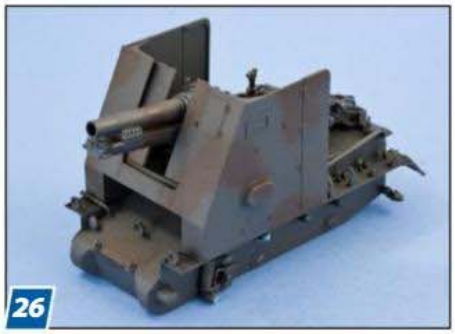


Bill likes to paint the suspension off the model — but first, it has to come off the sprue to be cleansed of mold lines, sprue nubs, and such.

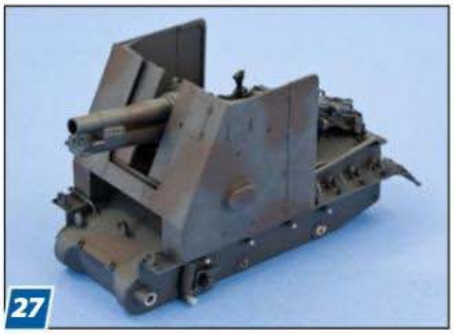
Three major assemblies in Bill's modular approach are ready for primer.



After Italian dark brown primer comes panzer schwarzgrau …



… followed by a camouflage pattern sprayed in schokoladenbraun. Blu-Tack covers suspension attachment points.



A lightened shade of gray added tonal variation. The Blu-Tack comes off the suspension mounts now; they're ready to have pieces glued to them.

brake drums; I had to carefully sand and taper for proper fit.

Fender and hull details

Using the corrected superstructure as a guide, I installed the large, curved wheel boxes atop the fenders, along with the brace arms for the rear trail mount on the engine deck, ***19***. Fender details include jack, wire cutters, pry bar, and a set of ready ammunition brackets on the right side.

Test fits with the TMD wicker ammunition cases showed it was possible to go ahead and install the belt cinches, so I added these now to make it easier to paint the cases off the vehicle, ***20***.

The rear hull plate received additional PE details, ***21***. "Dog chain" retainers for the idler caps were given more dimension by carefully counter-bending the links using two pairs of tweezers.

Up front, I added three headlamps, towing points, a siren, and some minor PE parts, ***22***. Front fenders are left off, as they often were on these vehicles. I removed the molded "foot" brackets from the Alan superstructure and replaced them with PE — good for detail, but also to allow the brake-vent hose to fit properly; I used a Dragon piece for the latter.

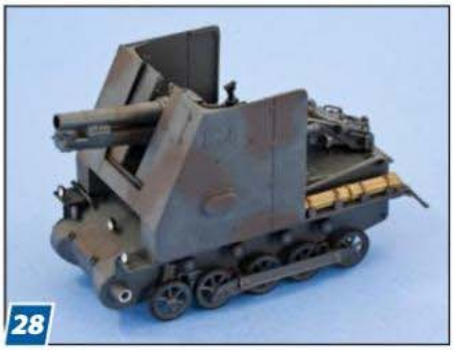
Painting begins

Prior to painting, I cleaned up all the suspension elements, ***23***.

Throughout construction, I kept the assembly "modular" by not installing the gun or the superstructure; the hull interior was protected by strips of blue painter's tape, ***24***. Blu-Tack poster putty kept paint off all the suspension mounting points.

All paints are Testors Model Master enamels unless otherwise noted.

After airbrushing a primer coat of Italian dark brown, I inspected my putty work, made sure there were no bits of bare plastic, and corrected as necessary. Then I sprayed a base coat of panzer schwarzgrau in thin, multiple passes, ***25***. The time period, May-June 1940, calls for a scheme of ⅔ panzer gray and ⅓ dark brown; I applied the dark brown pattern by airbrush-



And now this Bison is on its wheels.

Bill hand-paints details in place on the model with fine brushes and a steady hand.

Testors steel is applied to worn metal on the gun carriage, recoil sled, and breech.

Modelkasten tracks, looped and ready to go to work.

Dry-brushing high spots and guide horns with steel replicates wear on the tracks.

A glossy coat of PFM smoothes the surfaces for decals and protects paint for weathering.

Clowngeschütz? No, colors for a dot filter before blending.

Once the dot filter is blended, all that's left is a subtle tint that adds chromatic interest.

Dry-brushing and a pinwash carefully flowed into panel lines and recesses further define details.

ing schokoladenbraun at low pressure to minimize overspray, ***26***. After some minor touch-ups, I varied panzer gray areas by airbrushing a 4:1 mix of panzer schwarzgrau/light gray very sparingly in random fashion, ***27***.

Details and tracks

I detail-painted and installed the suspension, leaving the idlers and sprockets off until it came time to install the tracks. The suspension was fragile, and the alignment needed to be just so on both sides. After gluing the suspension, I let it set up overnight before adding the weight of the gun and superstructure, ***28***. The wicker cases were painted and installed and secured with their leather-painted straps. The muffler, exhaust, and pioneer tools on the right side were painted in place with a series of small brushes and much patience, ***29***.

I painted the gun breech steel and dry-brushed this color on the recoil sled to show bared metal, ***30***.

Modelkasten working tracks were next: After a week of joining links while watching TV in the evenings to break up the tedium, I had two runs of 101 each. I base-coated them with Metalizer non-buffing gunmetal, dry-brushed with steel, and applied a burnt umber wash before forming each run into a loop, ***31***. I installed the tracks along with the sprockets and idlers, adjusted for the desired sag, then carefully tack-glued the track onto the return rollers and idlers to secure them, ***32***.

Weathering

With everything installed, I sprayed the vehicle with a mist coat of Pledge FloorCare Multi-Surface Finish (PFM) to prepare for decals and protect the paint from the weathering process, ***33***.

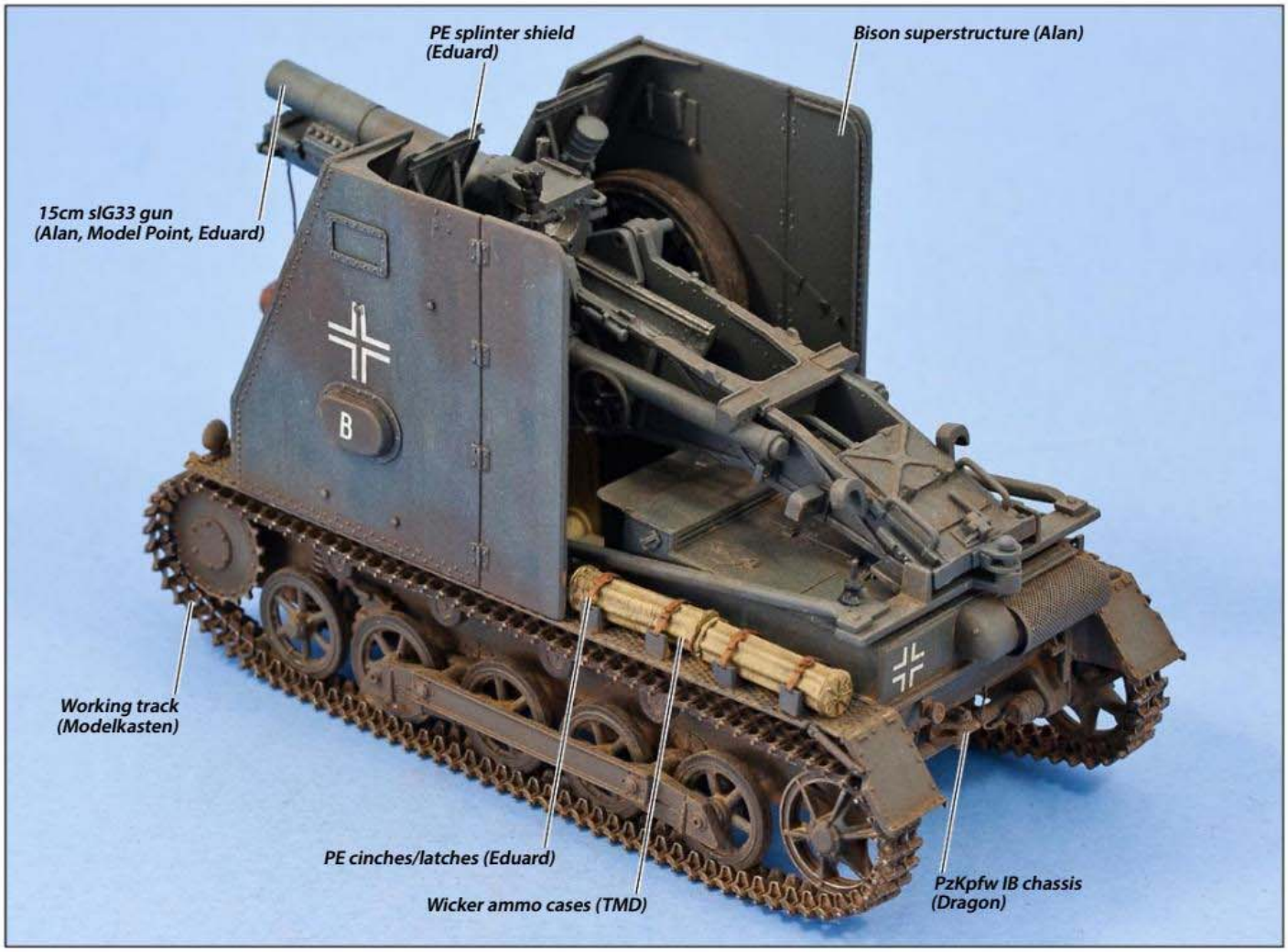
Bison Decals' markings for *Bismarck* were applied and treated with Walthers Solvaset to ensure they settled in. Once that dried, a second mist coat of PFM sealed the decals.

I started weathering with a dot filter, using bits of Testors flat enamels (from the small glass jars): sea blue, yellow, red, and white, ***34***. I blended them with an 0 round sable brush, pulling the paint down the sides until almost all of it was gone, adding depth and subtle color variation, ***35***. A pinwash of burnt umber brought raised detail and panel lines into contrast, ***36***.

After some minor adjustments where the wash had bloomed or been too heavy, I sealed the finish with Testors lusterless flat

Pigments applied to the lower hull before Bill blends them …

… and how it looks after he scrubs off the excess.


PE splinter shield (Eduard)
Bison superstructure (Alan)
15cm sIG33 gun (Alan, Model Point, Eduard)
Working track (Modelkasten)
PE cinches/latches (Eduard)
Wicker ammo cases (TMD)
PzKpfw IB chassis (Dragon)

Bill says he had a ball building his Bison. Only 38 were produced, but some of them served into 1943 on the Eastern Front. Doesn't look like a comfortable place to spend a Russian winter!

from a spray can. That gave the finish a bit of tooth. I dry-brushed with the same 4:1 mix of lightened panzer gray to further define edges and raised details.

To weather the running gear and lower hull, I mixed Mig Productions dark mud and Europe dust pigments with water, brushed it on, and let it dry for about an hour, ***37***. Then I removed excess with stiff-bristled brushes and wet and dry cotton swabs. A light coat of lusterless flat, sprayed from about 12 inches away, moderated and blended the pigments, ***38***.

Finally, I dry-brushed with steel on the track guide horns and contact faces to complete the weathering finish.

Voila!

It was fun to meld two kits and make a better model than either would have been. I enjoyed it from start to finish! **FSM**

19

Number of London churches destroyed by the Luftwaffe on Dec. 29, 1940, during the Blitz

Construct cathedral ruins

Shattered stained glass and crumbling walls tell a war-torn story /// BY MARC GRAND

I've been enamored of Jon Martin's dioramas ever since I was a teenager. His vivid World War II scenes inspired me to create this ruined cathedral, which would later become the background for an M4A3 from Dragon.

Construction began with two sheets of 12-pound urethane foam. I wrapped each piece in plastic and drew on the basic details with a marker. This way you can wipe off mistakes.

A scribing tool carved out the shapes and a steak knife sawed through the foam. A jeweler's saw cut around the windows. Don't throw away the leftovers — they can be used for the interior floor or rubble.

Forming each brick was a tedious process, but fairly easy using a rectangular brass tube as a stamp. It took me four days to complete the outside of the structure. I roughed up the surface with random scratches and gouges.

Milled wood strips became edge molding, which I pressed into the foam at an angle to create the perfectly sized channel to hold them in place. No carving tools required!

The door was made from a strip of basswood. I traced around a pill bottle to create the arch, then cut it with a razor saw.

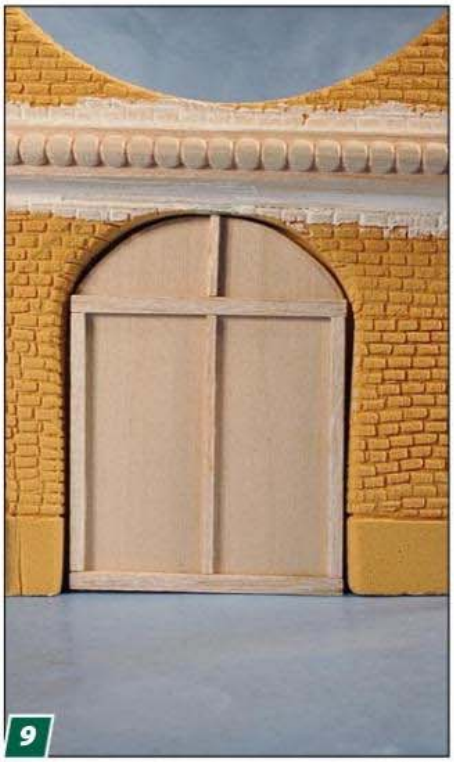
I attached sandpaper cut to the same size on one side of the door. After carving the outline in the foam, I used the sandpaper/door combo to sand the doorway to the necessary depth.

7

Toothpicks stuck in one side of the foam and a bead of glue down the length of the other side held the walls together.

8

Wood strips became beams on the interior. Because the space would be filled with rubble, I did not add doors to the interior.



9

After letting the structure dry overnight, I filled in smaller gaps with Vallejo Plastic Putty and attached the doors to the foam with 5-minute epoxy. Magic Sculp epoxy putty filled larger gaps around the doors.

10

Urethane foam is gritty and easily worn away, so I sealed it with acrylic gesso (used for priming canvas). A thin coat was brushed on and left to dry overnight. The moisture in the gesso softens the foam temporarily, but it will harden as it dries.

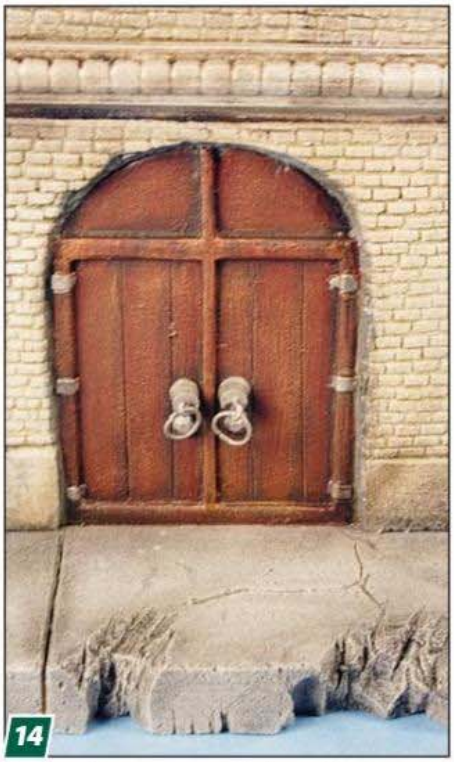
11

Eager to see how all the components looked together, I gave the structure a quick shot of gray primer to unify everything. To make door handles, I glued on barrel clasps with rings from the jewelry section of a craft store.

12

For the sidewalk, I hacked away at a few strips of foam with my trusty steak knife, then attached and sealed it in the same manner as the building.

A base coat of Polly Scale old concrete and light gray paints (now discontinued) covered the church. When dry, the walls were given several oil paint washes.



Dry-brushing came next, followed by door and hardware detail painting. Tamiya smoke and flat black were airbrushed over the edges to mimic soot. An overspray of Testors Dullcote completed the painting.

How *do* you make miniature stained glass? *My* solution is to create an image using a glass paint kit on clear styrene cut to the shape of the window.

Once the paint dries, acrylic "lead" (usually sold in the same kit as the glass paint) is used to draw out the *cames*, or framework. I did both the front and back, but you could skip the back and save time. I glued the windows to the cathedral with the acrylic lead.

Feeling that the facade looked sparse, I applied Hudson & Allen Studios ivy. Go slowly when gluing on the leaves, as it's easy to overdo it. I painted Citadel green ink wash followed with a dry-brushing of Apple Barrel kiwi. A lamppost completed the scene of destruction.

More at FineScale.com

Later, Marc added a cobblestone road and an M4A3 tank to his diorama. See photos of the complete build online. **FSM**

MMSI 2016

Some of the best figures in the world can be seen at the annual show and contest of the Military Miniature Society of Illinois. Held each October in Schaumburg, Ill., just northwest of Chicago, the show highlights miniatures from movies, books, and, of course, the military. Here are a few of the great works shot by editors Aaron Skinner and Elizabeth Nash.

JOHN ROSENGRANT
CANYON COUNTRY, CALIFORNIA
"I wanted to depict a tired but confident 101st paratrooper at Normandy," says John of his 1/9 scale scratch-built airborne soldier. He used mostly Vallejo paints and acrylic Master Series Paints with oils and enamels for effects.

Want to see more figures?

To see more of the entries at MMSI, check out the gallery at FineScale.com/OnlineExtras.

▲ BILL CHILSTROM
PORTLAND, OREGON
Bill created a 1/35 scale action scene, titled "Hit the Beach," of U.S. troops at Saipan in 1944. He used acrylic paints from Reaper Miniatures and Vallejo and weathered the LVT with Mig pigments.

◀ SCOTT PRIMEAU
ST. PAUL, MINNESOTA
Using Bandai's 1/12 scale kits of the beloved *Star Wars* characters, Scott stripped the gold plating off C-3PO and painted him Alclad II gold. R2-D2 was finished with Tamiya acrylics; both droids were weathered with oils, enamels, and pigments.

▲ STEPHEN MALLIA
PIETÀ, MALTA
Although Stephen did not modify them, he says much of his time was spent prepping the 54mm figures from Fusilier. He painted his British World War I infantry freehand with acrylics, washes, and pigments and positioned them "going down the line."

◀ KENNETH GONKO
MACOMB, MICHIGAN
Captain Ahab was out for revenge after Moby Dick bit off his leg. Kenneth gave him an ivory peg to stand on, as well as a hat and spyglass — all the better to spot nemeses with. This 75mm figure was painted with many layers of acrylics.

▶ ALEX McCUTCHEON
TORONTO, ONTARIO, CANADA
A foreman working on Union Pacific's transcontinental line was called a "walking boss." Alex's 54mm figure from Bent Bristle Miniatures looks like he means business, thanks to weathering washes followed by stippling.

JEFF CAMP
CAROL STREAM, ILLINOIS
Jeff used chalk pastels to punch up shadows around the eyes and cheekbones of Eydylhands Studio's 1/4 scale Vampira, Mistress of the Night. The base is a heavy wrought-iron candlestick with a rose leaf sculpted out of Aves Apoxie Sculpt.

TIM STREETER
EDINA, MINNESOTA

Painting Jaguar Models' 1/16 scale medic, Tim piled on layers of flesh tones as well as colors on the equipment. The base is a pine shard with Duro putty groundwork, Hudson & Allen snow and pine boughs, and real branches to resemble the Ardennes Forest. He scratchbuilt the medical cartons.

◀ SERENA NICOLL MILWAUKEE, WISCONSIN
Serena, 17, used oil and acrylic paint to bring a great horned owl to life. After using her freehand combo technique of dry- and wet-brushing, she weathered the feathers with black and brown washes.

▶ SAVANNAH FELL REESEVILLE, WISCONSIN
"He is a retired warhorse," Savannah says. "No longer bridled and ready for battle, but still in his halter, relaxing." The original Siskin Miniatures 1/10 scale kit had a bridle, but the bit broke. So, instead Savannah used extra pieces of the rein to convert the bridle to a halter. She hand-painted each tiny hair over the dapples.

◀ "RUSTY NAIL" HIGDEN, ARKANSAS
This 1/2 scale Caracolilla bust from Black Heart Enterprises is a resin kit Rusty finished out of the box using acrylic paints, washes, and pastels. He titled his creation "Queen of the Sea" — very fitting.

▶ JEFF BURNS WINNIPEG, MANITOBA, CANADA
Using acrylics for the base coat and oils for the shadows and highlights, Jeff brought color to this gruesome 75mm Hrungnir Hammerheart from Spawning Pool Studios. If you can bear it, notice the drool hanging from the vanquished's mouth. **FSM**

Build a carpet-laying Buffalo

You'll get a kick out of this "Funny" /// BY ANDY COOPER

Some years ago, I converted an Italeri 1/35 scale Water Buffalo LVT-2 to one used by the 79th Armoured Division in Northwest Europe during World War II. While researching that project, I came across another interesting variant of that ubiquitous vehicle — the Buffalo LVT-4 (Buffalo IV in British parlance) carpet layer.

In late 1944, the Buffalo carpet layer addressed an Allied need in the Battle of the Scheldt, the drive to open the port of Antwerp.

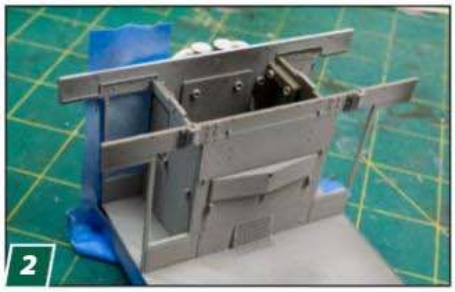
Straddling the borders of Belgium and the Netherlands, the Scheldt River estuary of low-lying islands and coastal areas was inundated after German forces blew up seawalls and dikes. Amphibious Sherman DD tanks had trouble negotiating the muddy banks to get into action.

Given a problem to solve, the British 79th Armoured — source of Hobart's Funnies, named for the 79th's commander Major General Percy Hobart — produced an unusual but simple modification of the Buffalo to carry and deploy a path of wood palings that enabled the Sherman tanks to find their footing. Rails to carry the palings were field-fabricated from whatever materials were at hand locally — mostly old tram or railway track.

The carpet was deployed by a second Buffalo that towed the leading edge of the carpet off the rails. From there the carrier vehicle drove over the carpet, pulling it off under its own tracks as it went. If a second vehicle was unavailable, the palings could be manhandled to get the carpet started.

This Buffalo can be based on either of AFV Club's 1/35 scale LVT-4s (AF35198 or AF35205, an earlier LVT-4).

After Tamiya gray primer, I sprayed interior walls white; the floor is a lightened shade of olive drab. I weathered with dark gray, using a small brush for chips and scratches. I scrubbed and dabbed dark gray with a bit of scouring pad to model chips and wear.



I built the engine compartment onto the hull floor first for easier painting. After the glue dried I primed this assembly before moving on.

Once everything inside was painted and weathered, I test-fitted and then assembled the hull. I glued one hull side down but clamped it with the other side dry — just a precaution to be doubly sure of alignment. A little extra masking tape corrected a slight warp.

With the main hull parts in place, the drivers' compartment and nicely detailed interior is ready to be hidden forever by the hull top.

To replicate the field-fitted carpet rack, I stripped the plastic ties from a segment of O scale railroad tracks and was left with two lengths of metal rails.

Caution: Appropriate gloves, clothes, footwear, and eye protection are needed to follow this step. Using a blow torch, bench vise, and pipe for formers, I heated and formed each metal rail according to my scale plans.

Once the rails were shaped, I measured and cut upright supports that I soldered to the rails. I super glued the uprights to the internal walls of the cargo area. Just be sure to let the soldering cool before trying to join it to plastic.

I soldered additional cross braces to the rails to stiffen the assembly. Minor hull details were put off until later.

After applying a coat of Tamiya gray surface primer, I pre-shaded the hull with Tamiya olive drab, a slightly darker shade …

… than the British greens I achieved with GSI Creos Mr. Hobby Aqueous Color H78 and H304 (a lighter olive shade). You can see the subtle effect of the pre-shading along panel lines.

I didn't plan to have a working ramp — I just needed the proper tension on the cables. When the glue on the cables dried, I closed the cable lockers atop the hull and applied Humbrol acrylic clear gloss to prepare for decals and weathering.

After applying decals, sealing them with clear, and allowing a few days of drying, I weathered with raw umber and burnt sienna artist's acrylics. Pinwashes of burnt sienna and white depicted rust and water flow, respectively. I made mud from an earth-toned mix of acrylics, white glue, and a little baking flour.

Once the mud had set, I blended with artists' oils to make the effect more subtle and, hopefully, more realistic. An application of acrylic matt sealer unified the finishes.

Old broom bristles are ideal for scale palings. I cut bundles, taped them together to bind them with linen thread, and strung them together for a length of carpet. A coat of white glue helped keep them together.

After the glue had dried, an artist's oil wash enhanced texture and toned down the white-glue gloss. A spray of acrylic matt sealer gave the palings the proper finish.

The completed carpet was tacked down with a few drops of white glue. I added deployment lines using the same linen thread, threading it through the front towing hook to complete the construction.

Following a final coat of acrylic matt sealer, some damp detail was added by applying clear gloss sealer to clumps of mud on the vehicle and in the cargo hold. Wet glossy streaks down the sides added a "live" look to the model. The Buffalo IV carpet layer was a rare and little-known specialty vehicle that played a pivotal role in its time and place. **FSM**

By Mark Savage

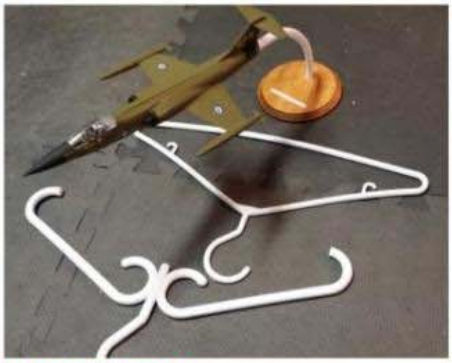
Resolve a sticky situation

Ever have super glue caps stick and need to use your pliers or Gerber tool to loosen them? Sometimes you just can't take them apart.

Acetone is the answer. Fill a little cup with acetone just above the cap and soak it for about 30 minutes.

Bam! You've got a cap with no glue on it. Just wipe it clean and stick it back on the glue container. Use a spare glue cap temporarily while soaking the other cap. Problem solved!

– David Holman
Central Point, Ore.



Hangers work!

Sometimes you get in a bind, even with fairly common supplies. I just couldn't find acrylic rod for an in-flight display.

But I discovered that plastic clothes hangers work just as well.

I used a heat gun to shape the thick plastic rod. The hangers come in different thicknesses and colors, cost very little, and are available almost everywhere.

– Raymond Rodych
Regina, Saskatchewan, Canada

We'll drink to this!

I'm not a fan of clutter so was looking for an alternative to the multiple small plastic cups (coffee creamer cups) to mix paint for airbrushing.

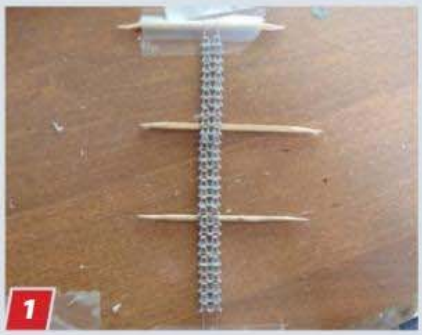
My solution? A stainless steel double jigger! They range from $3-$6 at liquor stores.

There are options too, like diameter of the rim, that improve stability for those who may not have great dexterity. They're super easy to clean and store, and reusable for years.

A jigger also can be used to add a nice shot to your coffee while working on a kit. But be sure you clean out the paint first!

– Mike Hamm
Canyon Lake, Texas

HAVE A TIP OR TECHNIQUE TO SHARE?
Send a brief description along with a photo to tips@finescale.com or visit FineScale.com and click on "Contact Us." Tips are paid for upon publication; if you live in the U.S., we'll need your Social Security number to pay you. *FSM* obtains all publication rights (including electronic rights) to the text and images upon payment.



No more missing links

I have developed my own technique for assembling individual track links. It took me seven years, but I think this works best.

Here are the steps:

Place a toothpick on a flat table surface and tape it down. Then place a second toothpick 5 to 6 inches from it and tape the second toothpick down. I've also experimented with a third toothpick, in the middle, to add stability.

Tape two pieces of sewing thread on top of the toothpicks. Leave a space between the threads. Now begin gluing (I use Elmer's) the track links on top of the thread in a continuous row. Move down the thread until you reach the end, the final toothpick, ***1***.

Let the links dry overnight. It's key not to remove them too quickly.

The next day you can clip the threads and remove the links and place them around the model's road wheels, ***2***.

The toothpicks keep the glue from sticking the tracks to the table. Better yet, the track is as flexibile as regular plastic or vinyl tracks. I just finished Dragon's Panzer I and it looks great.

– George Fugett
Hixson, Tenn.

Filling ejection marks

I use a simple technique to fill ejector-pin marks.

I have a sheet of really thin clear plastic that I can cut easily with scissors to fit the affected area. A bit of super glue to tack it in place and no more sanding or filling is necessary!

– Wade Middleton
Castle Rock, Colo.

Finally, a modern 1/48 scale Banshee

When the U.S. Navy told McDonnell it wanted something that hit harder and flew farther than the FH-1 Phantom, the designers and engineers created the Banshee, an incredibly versatile airframe capable not only of traditional fighter roles but also tactical nuclear delivery, night and all-weather combat, and photo reconnaissance.

Kitty Hawk's detailed F2H-2 includes optional noses to build either a fighter or photo reconnaissance Banshee, plus a terrific cockpit.

The soft plastic is delicate; I broke several small parts when removing them from the sprues and cleaning up the mold seams and flash.

The 24-page instructions were vague about placement of some parts, notably the speed brakes, and some part numbers are incorrect. Interior color callouts are correct for gray-over-white aircraft but not glossy sea blue planes. Good references will help with many of the shortcomings.

Construction begins with the multipart ejection seat. The lowest two cross members on Part C22 seem too short and make the seat appear splayed out. It's difficult to fix, so a resin replacement may be your best option.

Don't glue the rear bulkhead (Part B77) as shown. Instead, hold the fuselage halves together with the cockpit in place, add the rear deck (B58) to the fuselage, and then angle the bulkhead to eliminate the gaps. I trimmed the top of Part B77 to fit the canopy.

Deviating from the instructions again, I added the nose gear after construction by sliding the rear mounting pins down and between diagonal ridges on the bay's sides. After seating those pins, I turned the front locators into position. However, adding plumbing (C25) and front door hinges afterward was challenging.

I found it difficult to remove seams from recessed sections on the ammo cans for the gun bay. But most of the gun or photo bay detail will not be visible after construction. You may choose to display the interior detail separately; that leaves more room for the 1.5 ounces of lead to keep the nose grounded. Omitting the nose's aft bulkhead improved its fit to the fuselage.

Be careful: It's easy to twist the thin fuselage during assembly.

To ensure alignment, I waited to glue the intake trunks to the engines until I attached them to the lower wing. Large gaps fore and aft of the wing on the lower fuselage required filler.

I added the exhaust sections during final assembly by mounting the rear fan in the pipe and gently sliding them in from underneath.

I was never able to learn if the flaps should be separate pieces, as molded, or one large section per wing. Either way, the mounts on the curved section are short. I removed the mounts and glued them directly to the wing. The flaps are too small if you close them.

I painted the instrument panel rather than using the decal. The panel shroud is correct for a recon bird but not a fighter, and no gunsight is provided.

Photos helped me configure the speed brakes, but I had difficulty sliding them through the wings.

The wing tanks lacked locators, so I used a cutting-mat grid to align them. I could have used an extra set of hands to hold the wing sections while attaching the wing-fold hinges. If building the wings extended, reinforce the joints. Then trim the ribs (parts B41, B42, B43, and B44) to fill the space in the gear wells. You may want to shim the lower wing to ensure proper dihedral — I didn't and the wings droop on my Banshee.

The kit provides eight pylons but only two bombs and four rockets. However, this load constitutes the maximum weight for a Banshee.

Kitty Hawk provides markings for four aircraft, but the print registration was off in my samples. The decals were thick and inflexible in some areas, and covered in a milky white overspray in others. The nose decals were too small, while the tank decals were too large; I masked and painted them instead.

I spent almost 50 hours building the Banshee with wings folded, a little less on the other. The length and wingspan (without tanks) matched my references nearly perfectly. However, to my Mk.I eyeball some of the shapes seem slightly off.

Kitty Hawk's Banshee packs a lot of detail. But fit problems and poor decals make it a kit for experienced modelers.

–Andy Keyes

Kit: No. KH80131 **Scale:** 1/48 **Mfg.:** Kitty Hawk, www.kittyhawkmodel.com **Price:** $65 **Comments:** 239 parts (12 PE), decals **Pros:** Excellent detail and plenty of options **Cons:** Incorrect part numbers and vague placements in instructions; poor fit of lower wing to fuselage; canopy can't be posed open

Tiger BMPT-72 Terminator II

To provide fire support in urban battlefields, the BMPT-72 mounts a new turret on a T-72 hull. Armament includes two 30mm cannons, four laser-guided antitank missiles, and a 7.62mm machine gun. Although the vehicle is not in service anywhere, it has been the subject of several 1/35 scale kits. Tiger's offering features the second version, the Terminator II, with new missile tubes and no hull grenade launchers.

Most of the parts come in dark yellow styrene; tracks are in black plastic, and lights, vision blocks, and optics are molded in clear. Photo-etch (PE), metal cable, and vinyl poly caps finish out the parts.

The moldings impressed me with sharp details. I had to trim a little flash and eliminate some prominent mold seams, but only the lower glacis plate just above the spade showed ejector-pin marks.

Kit: No. 4611 **Scale:** 1/35
Mfg.: Tiger, www.tiger-model.com
Price: $89.95 **Comments:** Injection-molded, 1,349 parts (81 PE, 24 vinyl poly-caps, 2 metal gun barrels, steel cable), decals **Pros:** Working tracks; optional plastic and metal gun barrels; plastic alternatives for PE parts **Cons:** Fragile track links; mistakes in instructions

The kit provided plastic alternatives for many of the PE parts, but the directions do not always point out the options. For those with butterfingers, the PE fret includes extras for many of the small parts.

Clear instructions show uncluttered assembly steps, but many of the part numbers are wrong. The marking guide has five views for each of four vehicles; all are BMPT-72 displayed at arms shows from 2013-2015. Color callouts refer to Tamiya and Ammo of Mig Jimenez paints.

Study the directions. I prefer to assemble the hull first, then add the details. But this caused problems because I built the armor plates that protect the turret before adding detail that runs underneath these plates. You have been warned.

Step 21 shows two doors on the ring around the turret, each numbered S22; the one to the left of the driver should be S21. Before gluing them in place, make sure to test-fit both; one fits in both spots, the other only fits on one side.

Each torsion bar has the part number molded on it, helpful if you cut them all from the sprue at the same time.

If you don't like PE, Part PA8 has a plastic alternative not shown in the directions; it is Part A1.

The kit provides optional road wheels matching different color options.

Remember to drill holes in the upper hull before attaching the lower hull, but I recommend a smaller bit size than shown in the directions.

I found Step 11 frustrating because most of the PE part numbers are incorrect. Follow the pictures instead of the part numbers. The rest of the hull assembles without any real problems.

The workable tracks consist of individual links with separate guide horns and end connectors. The blocks are weak, and I broke many during assembly. Fortunately, many extras are provided. The directions don't show how many links to use, but 82 fit the model perfectly.

Tiger's jig eases installation of the end connectors, and once they're in place the tracks are quite strong. Optional rubber pads are included, but none of the photos I found showed them in use.

Location of hooks N46 and Q8 in Step 24 is vague, so I glued them down after the boxes on the side of the turret were in place. Poor fit of the gun/missile supports forced me to fill gaps. I left these off for painting. The kit provides plastic and metal gun barrels, but the detail of the metal parts was too good to pass up.

I painted a Terminator II from May 2014 with Tamiya acrylics. The instructions show a mix of white (XF-2) and yellow (XF-3) for the yellow shade, but no ratios are given. The resulting color looked washed out, so I added a little dark yellow (XF-60) to warm it up. (By the way, the mix for the yellow using the Ammo colors didn't make any sense, so check it if you use those paints.) No directions are given to paint the missiles, but the side of the box has color photos.

I spent 55 hours on my BMPT-72, most of it assembling tracks. With more than 1,300 parts, this kit might intimidate less-experienced builders. But good engineering puts it well within the reach of most modelers. The kit's completeness — metal barrels, easy-to-use PE, metal tow cables, and workable tracks — means no aftermarket items are really needed to improve the model.

– Mike Scharf

Academy USS *Missouri*

For the *Mighty Mo,* Academy turns again to its multicolor plastic (MCP), easy-to-build concept. At first glance, the kit seems aimed at beginners. But it offers experienced builders a challenge that produces a good replica.

The kit consists of eight sprues — five gray and one each in blue, red, and black — as well as several large individual parts. No flash mars the crisp moldings; the parts require only careful trimming and sanding of sprue attachments. The armament was a highlight with 20mm, 40mm, and twin 5-inch turrets finely formed as single units.

The kit provides both waterslide decals and stickers for two versions: a postwar ship in overall haze gray or wartime Measure 22. The latter requires paint, but the former can be built out of the box. I planned to build the wartime version, so I prepainted many of the decks and vertical surfaces before adding small parts.

The build begins with a decision to build the ship with a full hull or to waterline it. Note: Assembly is more press-fit versus snap-fit, so a steady hand and sturdy fine-point tweezers will be required for small parts. I used a touch of cement to secure the bow of the lower hull.

Worried that the necessary pressure might damage the main turrets and decks, I skipped to Step 4 and added the props, shafts, and rudder. Be careful working with the props; the blades are scale-thin and fragile.

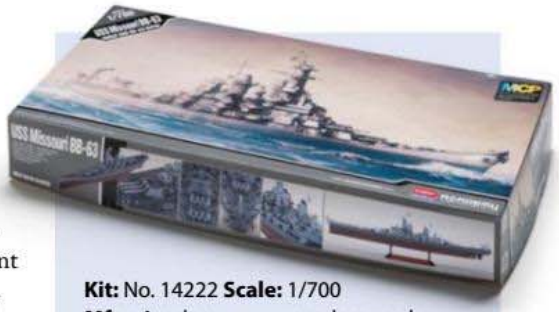
Moving to the main deck, the instructions indicate that using thin liquid cement will secure the first 23 of the 20mm guns. (You'll install 49 by the end). Main turrets rotate through the use of pins and have separate, precolored deck blue tops.

Step 10 creates nicely rendered Curtiss SC-1 aircraft with accurate floats and molded-on propeller. Decals for the scout planes were stiff and needed extra work to conform to the fuselages. This was the only problem I encountered during the build. Here's my tip for painting plastic aircraft canopies: First, paint the area light gray. Follow with a layer of Citadel Devlon mud wash, then seal with Pledge FloorCare Multi-Surface Finish.

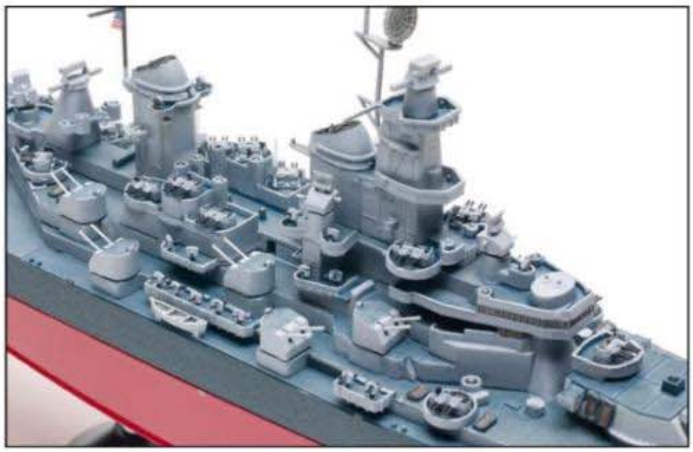
The ship's massive superstructure, with its myriad protrusions — 20mm, 40mm and 5-inch guns, gun directors, and masts — dominates Steps 11-20. You'll have no problems if you stick to the printed sequences. The foremast is molded onto the conning tower, eliminating alignment concerns, and the radar screens look good for molded plastic.

The finished model measures a little more than 15 inches long and it looks right. While Academy's *Missouri* might be aimed at a beginner, it does have some challenges. Still, anyone with a kit or two under their belt will enjoy building the battleship. It would be perfect for armor, aircraft, or car modelers looking for something different.

– Mark Karolus



Kit: No. 14222 **Scale:** 1/700
Mfg.: Academy, www.academy.co.kr
Price: $35 **Comments:** Injection-molded, 210 parts, decals, stickers
Pros: Excellent instructions; a perfect introductory kit
Cons: None



Trumpeter ZSU-57-2

Based on a modified T-54 chassis with fewer road wheels and lighter armor, the ZSU-57-2 SPAAG (self-propelled antiaircraft gun) carries a sting in the form of twin 57mm S-68 auto cannons on the large open turret.

Trumpeter's new ZSU-57-2 is a great kit of a fun subject. The hull comprises simple upper and lower halves, making a clean, fast build of the main body. The hull presented no fit problems, but the headlights were fiddly.

The trouble-free road wheels and suspension came next. Molded in a different color from the rest of the parts, the tracks resisted the Tamiya Extra Thin Cement used on the rest of the build; I resorted to Testors tube glue to bond them.

I had no trouble with the guns. The slide-molded gun barrels look great, but you need to carefully drill out a few extra holes in the muzzle break as indicated in the instructions. If you want the guns to elevate, or to pose them at an angle other than straight forward, leave off or modify Part G35 in Step 16. I ran into problems assembling the turret and ammunition inside the walls. The rounds are molded separate from the racks, so they are easy to paint but difficult to align.

I could not fit the turret's outer walls over the ammunition storage without removing tabs on the back of the racks' tops. Even after this, the turret walls needed coaxing into place. I glued them in short sections, holding them until the glue was dry to ensure a tight fit all the way around.

The brittle gray plastic was fine for large parts, but I broke several thin parts, such as the handrails, getting them off the sprues.

All the extra work pays off because the open turret puts it all on display. Color instructions for all that interior detail are pretty vague, so I relied on photos.

Trumpeter provides four marking options, with two Soviet vehicles and one each from Iran and Finland. I picked the last because the splinter camouflage provided a nice contrast with the rounded turret.

Kit: No. 05559
Scale: 1/35 **Mfg.:** Trumpeter, www.trumpeter-china.com **Price:** $76.95
Comments: Injection-molded, 611 parts (54 PE, copper wire), decals **Pros:** Terrific engineering and smart use of PE
Cons: Fit problems; brittle plastic makes thin parts fragile; vague instructions

I spent about 30 hours on Trumpeter's ZSU-57-2, a little less than usual for a similar-sized vehicle. It makes a lovely addition to a modern armor collection. Watch for the couple of trouble spots and you'll be fine.

– Chris Cortez

Moebius Michael Myers from *Halloween*

Moebius Models recently reissued Polar Lights' kit of Michael Meyers from John Carpenter's groundbreaking thriller *Halloween*. I'm a big fan of the movie — I've seen it countless times over the years — so I couldn't wait to get started.

The kit consists of 39 injection-molded plastic parts and one lighting kit for the jack-o'-lantern. The parts are free of flash, and most of the ejection-pin marks are on inner surfaces; the only visible one was on the T-shirt, and it's easily eliminated.

Assembly begins with head and neck. Diverging from the instructions, I found it easier to attach the back of the neck to the face before adding the back of the head.

I work in subassemblies, so I left off the collar/chest insert until Step 4. Then I installed it with the rest of the clothes. It also makes for easier painting.

The hands and arms went together without problems, but I added a dab of filler to the palms. I left the knife loose for painting and discovered I could slip it into Michael's hand without glue later.

To paint the hands separately, I removed the disks that lock them into the arms. Then I could slide them into place at final assembly. I used Testors tube glue to construct the large parts of the figure because it dries slowly, allowing ample time to align parts for optimum fit.

Parts fit throughout impressed me, with most seams needing only a little sanding for cleanup. Michael's arms and legs fit together flawlessly.

I used just a bit of Vallejo Plastic Putty around the color/chest insert; after smoothing it with a damp brush, I didn't even need to sand it.

I base-coated the main body with black primer; the rest was primed white.

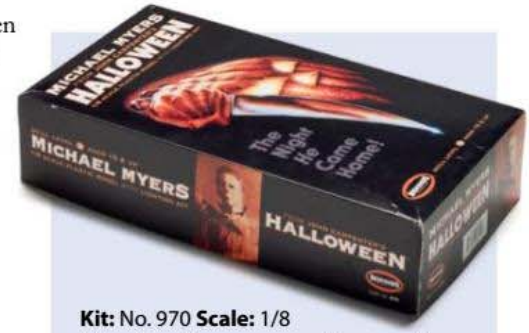
I assembled all of the display-base components next. The jack-o'-lantern needs special attention for the light. After removing a locating tab underneath, I drilled a 3mm hole to accommodate the LED. Then I sprayed the inside of the pumpkin gloss dark yellow and glued the halves together.

I thought the sides of the porch too smooth, so I roughed them up with 80-grit sandpaper to produce light wood grain. Likewise, the texture of the grass and concrete walkway seemed faint; I enhanced both with heavy dry-brushing and washes.

A discarded child's mask and trick-or-treat bag complete the scene. I hand-painted a decoration on the bag, but a decal would have been a nice addition.

I spent about 20 hours on Michael, mostly painting, which I really enjoyed. I recommend this kit to anyone who is into large-scale figures and horror movies. It would be great for younger modelers (if parents don't mind the subject matter.)

– Jeff LaMott



Kit: No. 970 **Scale:** 1/8
Mfg.: Moebius, www.moebius-models.com **Price:** $39.99 **Comments:** Injection-molded, 40 parts (1 lighting circuit)
Pros: Good fits; easy-to-install lighting adds atmosphere **Cons:** Molded texture on concrete walkway resembles leather

QUESTIONS & ANSWERS

By Mark Hembree

When clear plastic yellows

Q I have an old car model with clear parts that have yellowed. There is no way for me to remove the windshield to place it in some cleaning product. Can you suggest any method or product to remove the yellowing?
– Dan Mitchell
Hillsborough, Calif.

A That is a tough one. I can think of a few substances you might try, but without being able to test the plastic off the model I would hesitate for fear of making it worse. One swipe of the wrong stuff might craze the plastic or turn it gummy.

One noninvasive ploy is to place the model where it can receive direct sunlight; that might bleach out the yellow. (This sometimes works for decals.) Leave it there for a week and see if it's getting any better.

If the plastic is thick enough and attached firmly enough, you could try to buff it out with something like the Micro-Mesh or Alpha Abrasives finishing kits, which provide several fine-grit sanding cloths and a buffing compound. Applied with patience, that procedure might clear it up.

If all else fails and you still can't stand the yellow, you could carefully remove the clear parts, patiently scribing until you get through the plastic. Replace them with clear acetate about the thickness of one of those collar stiffeners you get with a new shirt. Then wear the old shirt at your workbench.

Masking the problem

Q When I try to mask a spinner, I cannot get the tape to curve and lay flat. If it does, it masks something other than a circle. The same occurs when I try to mask the nose of the plane. I've tried other ways to get a good mask, but I am running out of patience and tape.
– Michael Pelkey
Ashville, Ala.

A It is difficult to answer without seeing exactly what you are trying to mask, but I can give you some general advice.

On a prop spinner or some other surface with compound curves, what you need out of your mask is flexibility. As you have noticed, your mask will bunch up/buckle/wrinkle as you travel around a curve. So, you need masking tape that is flexible. Tamiya thin tape (also called *kabuki* tape) is flexible, and if you cut it in thin strips it can be made to follow a curve.

On a spinner in particular, there are a couple of ways to go. You could travel around the circumference with segments of thin strips; making the trip around with several segments will keep the tape from buckling or wrinkling. Or, you could try to cut a (perfectly) circular hole in the masking tape and pull it over the nose. (Think of putting on a T shirt and leaving it wrapped around your head!) If you get the fit right you are in business.

Tamiya actually makes a tape designed for curves. I have not tried it yet, but I hear it works great. Check it out at www.tamiyausa.com.

Paint removers

Q What is the best method of removing acrylic paint from a kit that was done 10 years ago?
– Dale Sanhuber
Milwaukee, Wis.

A There are hobby-specific products out there, such as Strip-A-Kit and Deluxe Materials' Strip Magic, which are said to be effective.

But regular old brake fluid will do the trick. Get a bucket deep enough to submerge the model and soak the model in the fluid. Leave it for 24 hours, then use a toothbrush to remove whatever paint you can. Soak it for another day and repeat. Once the paint is off, rinse the plastic thoroughly.

Give me an E!

Q The KC-135E was the most widely used air refueler, and yet I'll be darned if I can find a 1/72 scale kit for one. I worked around the E models for 24 of my 26 years in the U.S. Air Force, and I want a 1/72 scale kit of one. I own a 1/144 scale kit, but I want a bigger model. Any suggestions?
– Master Sgt. Don G. Bryson, ret.
Magna, Utah

A In a short sweep to see what's around, the best I can tell you for an E in 1/72 scale is to convert the AMT/Ertl or Heller KC-135A or R. I wish I had better news for you, but I'm afraid I'm stumped — although now that I've said so, perhaps one will appear!

GOT A MODELING PROBLEM?

Our Questions & Answers column is here to help. E-mail questions@finescale.com, or visit FineScale.com and click on "Contact Us." We are not able to conduct lengthy research, such as answering questions on markings and unit histories. We publish letters of general interest in the magazine; however, mail volume and space limitations prevent us from printing every question. Please include your name, town, state, and a daytime phone number.

Needs a filler he can scribe

Q Rescribing panel lines over areas with filler or putty usually results in a gouged surface. I recently read an article that suggests using a mixture of talcum powder and super glue, instead of putty, can give better scribing results. However, it did not elaborate on mixture ratios, application techniques, etc. Any suggestions on this, or any other method, that can help get me better rescribed surface details?
– Ed Ritchey
Centreville, Md.

A I've heard of this mix of talcum powder and super glue for filler. Talcum powder will add body to the super glue and also make the filler more visible, which is helpful for gauging your progress as you sand it smooth.

But the active, key ingredient in this mix is super glue. People have their preferences for filler, but for scribing it afterwards — such as restoring panel lines after filling and smoothing a fuselage seam — you can't beat super glue. Apply it quickly and sand it smooth before it cures completely. If you wait, it's tough as nails.

At that point, you can scribe it and know the line will be as true as your stroke — no chipping or crumbling. The trick is making sure your stroke is true. I like to use a razor saw with Dymo labeling tape or a flexible straightedge as a guide. This method was demonstrated well by Pat Hawkey in "Scribing panel lines" (November 2007 *FSM*). Back issues are available at www.FineScale.com/issues or by calling us at 800-533-6644 (813-910-3616 international). **FSM**

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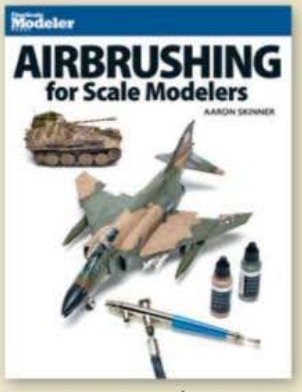

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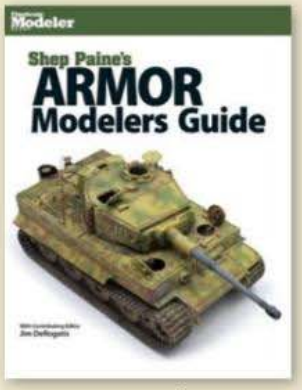

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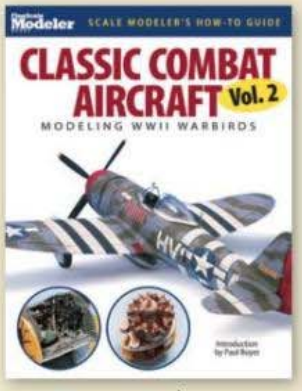

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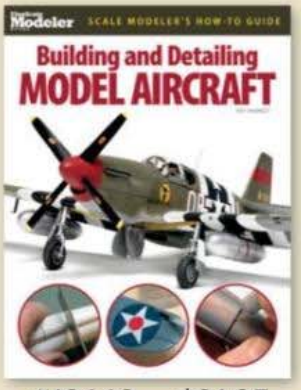

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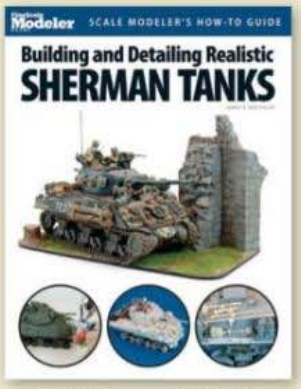

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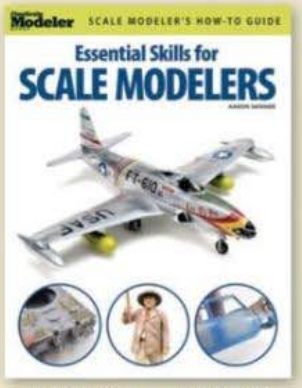

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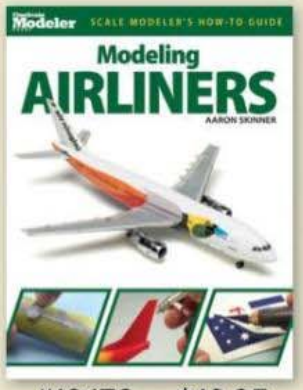

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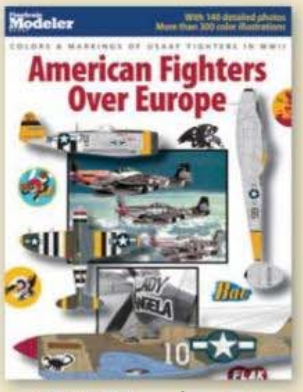

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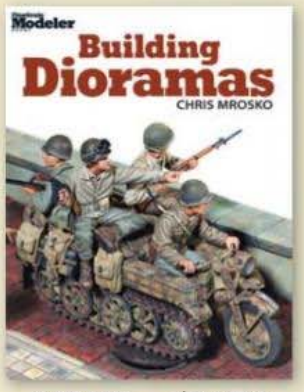

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GA, MARIETTA: 2017 AtlantaCon, Region 3 Model Show. IAMAW Local Lodge 709, 1032 South Marietta Parkway. Saturday, March 11, 2017, 9:00am-5:00pm. Admission $5.00/person, 12 and under free. $10.00 unlimited model entries. For more information go to http://ipms-atlanta.org or contact Bill Johnston at 678-308-7308 or bjnga1952@gmail.com

IL, CRYSTAL LAKE IPMS Region 5 Contest and the Sixth Annual Northern Illinois Model Contest (NIMCON 6); McHenry County College, 8900 Hwy 14, Crystal Lake; Saturday, May 20, 2017; 9am-5pm; Gold/Silver/Bronze contest rules with special awards for select WWI entries; well lit contest area; huge raffle, large vendor room, food available from WGW Foods. For info and forms visit: www.lakesregionmodelers.com

NV, LAS VEGAS: International Plastic Modelers Society, Las Vegas Best of the West #22 "VegasCon". Eastside Cannery Hotel and Casino, 5255 Boulder Hwy. May 6, 2017, 9:00am-4:30pm. $10.00 fee includes three model entries. Facebook IPMS Las Vegas Best of the West Model Contest" or E-mail jwporco@embarqmail.com for more information. Vendor tables available. Rules/Categories/Entry Forms/Room Rates IPMSLV.ORG/

CANADA, BRAMPTON, ONTARIO: Torcan 2017 Model Contest. Century Gardens Recreation Centre, 340 Vodden St. E. Saturday, May 6, 2017, 9:00am-5:00pm. General Admission $5.00, children 12 & under free. Contestant Admission: Adult $15.00 includes 3 models, $2.00 each additional entry. Junior $7.00 includes 3 models, $1.00 each additional entry. Hosted by Peel Scale Modelers. Visit www.TorcanModelShow.com or info@peelscalemodelers.com

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By Mark Hembree

A story finds a model

Most models have a story: historic ships conjure legends … a certain set of decals personalizes a plane … a specific tank recalls the battles it fought.

And sometimes it works the other way around — the story inspires a model. That's how it was when Felipe García Naranjo Alvarez, an architect, real-estate developer, and modeler from Tijuana, Mexico, asked us to identify an airplane in an old picture of his uncle.

The photo showed a Stearman Kaydet, also known as the Stearman 75 and later built by Boeing. American World War II pilots knew it as the PT-17 (U.S. Navy NS and N2S) trainer. More than 10,000 were built. This one belonged to the man in the picture, Luis Alvarez Vélez, one of Felipe's two uncles on his mother's side.

Luis Alvarez Vélez and his Stearman cropduster in 1957.

The story begins

The story actually starts with Luis' older brother, José, who dreamed of being a fighter pilot. Instead, his father sent him to college in the U.S., where he attended North Texas Agricultural College in Arlington.

That was as far as José would go in the field of agriculture. In 1942, not yet 21, and without his parents' permission, he dropped out of school and hitchhiked to Canada to join the Royal Canadian Air Force. It was his shortcut to a pair of wings.

Back in Texas, an accomplice forwarded José's letters home. But when José's father caught on he contacted the Mexican consul general in Montreal, who advised José to obtain his father's consent or return to Mexico. José's father acquiesced on two conditions: that he would fight on the right side, and that he would graduate with a commission.

José excelled, becoming an officer and flight instructor. After the war, the future looked bright. He and a partner, with capital from José's father, founded an air freight company in southeastern Mexico. They acquired a cargo plane to transport cattle and were looking forward to expanding their business with coffee farmers. "The potential market was huge," Felipe says.

But on Oct. 31, 1947, José and his partner were killed when their plane crashed north of Tapachula, Chiapas, Mexico. José was 25.

Uncle Luis and his Kaydet

Like José, Luis was sent to school in the U.S. — and, like José, he yearned to fly. "My grandfather died of a heart attack in 1952, so he never knew his son Luis was also on his way to becoming a pilot," Felipe says.

Without a word to his family — "in particular, my grandmother," Felipe says — Luis got his pilot's license at age 19, passing his final examination in a Piper J-3C in April 1954. By March 1955, he was certified to fly cropdusters — a lucrative way to support his widowed mother.

Postwar surplus Kaydets sold for only a few hundred dollars. Their price, low-speed characteristics, and airframe made them ideal for cropdusting. And that is how the picture of Felipe's uncle Luis came to be; the spray equipment can be seen on the airplane's lower wing. The photo is from 1957.

That year, on June 29, a telegram arrived at Felipe's home. "My father read the bad news," Felipe says. While spraying a field near Hermosillo, Sonora, in northwest Mexico, Luis' plane had hit power lines and gone out of control. He was 22.

U.S. Navy photo

Naval aviation cadets at NAS Pensacola in 1936; later variants of this plane were designated N2S in the Navy, PT-17 in the Army Air Corps.

"One of my mother's brothers-in-law was the only relative at the funeral," Felipe says. "As a young boy of 8 at the time, I was unable to understand this second tragedy in my family. My hero was gone and I could not comprehend the immense loss, nor the suffering of my mother, my aunts, and especially my grandmother.

"Through the years, with my special interest in aviation and everything related, I believe I would have been a pilot if these tragedies had never happened.

"But I am very happy to remember these two great people, my uncles José and Luis Alvarez."

Felipe is now building a PT-17. **FSM**

More at www.FineScale.com

Visit us to see more photos and read a longer version of Felipe's family story.

In Desperate Defense

1/48 Aircraft Series Kawasaki Ki-61-Id Hien (Tony) (Item 61115)

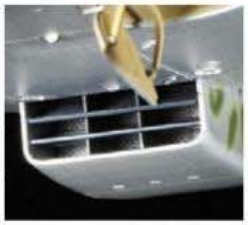
The Hien stood out among its Imperial Japanese Army aircraft contemporaries in the Pacific War on account of its liquid-cooled Ha-40 engine, slimline fuselage and long, elegant wing. A number of different variants were produced, among them the Ki-61-Id which featured a 20cm-elongated nose to house 20mm cannons – this model recreates that aircraft. Thanks to in-depth study of the Hien the model faithfully renders its form in detailed 1/48 scale, including the Ha-40 powerplant, cramped cockpit, fuselage underside radiator and more. An optional clear fuselage left side piece is also included to let you admire the inner structure of the model even after your masterpiece is complete. The 2 marking options depict eye-catching aircraft from the 244th Air Group, which fought tooth and nail against incoming B-29 bombers as U.S. air power threatened the Japanese home islands toward the end of WWII.

Captain Teruhiko Kobayashi, 244th Air Group, Chofu Airbase, February 1945

The inverted Ha-40 V12 is depicted complete with supercharger and other details.

The engine can be admired even after assembly of the model, thanks to a removable upper cowl.

A seated pilot figure adds realism. The sliding canopy can be assembled open or closed.



Multi-part radiator showcases superb detail and accuracy, right down to the depiction of air intake slats.

Fuselage length: 187mm
Wingspan: 250mm

244th Air Group markings are included.

Parts included for 2 drop tanks.

Cockpit interior features 20mm cannon ammo cases, oil tank and more.

2nd Lieutenant Shunzo Takashima, 244th Air Group, Chofu Airbase, May 1945

Clear left fuselage part included!

Transparent part gives a good look at the internal structure of the Ki-61-Id, even after completion.

★Images show assembled and painted kits. ★Product may vary from images shown.

Hayate (Frank) & Kurogane Scenery Set (Item 61116)

Comprehensive set includes 2 models, base and diorama sheet. On sale now!

飛燕

(A brief introduction to the Hien) The Ha-40 engine was a license-produced version of the Daimler-Benz DB601, and in employing it the Hien became the solitary Japanese Pacific War fighter powered by a liquid-cooled engine, more powerful and less aerodynamically disruptive than air-cooled counterparts. As a result, designers were able to achieve the distinctive slimline fuselage design and high aspect main wing. It was officially adopted in 1943 and went through a number of production variants to combat ever-evolving U.S. fighters. Firepower on the Ki-61-Id variant depicted by this model was provided by two 20mm nose cannons embedded in the fuselage, and a 12.7mm machine gun in each wing. 1,360 Ki-61-Id aircraft were manufactured between January 1944 and January 1945; their effective armor and performance at high altitude saw them tasked with intercepting U.S. B-29s heading for the Japanese home islands.

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